

GRADUATE STUDIES 1992-1994





# Bloomsburg University School of Graduate Studies Graduate Catalog • 1992-94

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Prepared June 5, 1992  
by the School of Graduate Studies  
Bloomsburg University of Pennsylvania  
A member of The State System of Higher Education

Bloomsburg University is committed to Affirmative Action and Equal Opportunity.  
Minorities, women, and other protected class members are urged to pursue  
educational and employment opportunities at Bloomsburg University.

*Bloomsburg University reserves, for itself and its departments,  
the right to withdraw or change the announcements made in this catalog.*

Bloomsburg University is accredited by the  
Commission of Higher Education for the Middle States Association of Colleges and Schools  
National Council for the Accreditation of Teacher Education  
National League for Nursing  
Council on Education of the Deaf  
American Speech-Language Hearing Association  
Council on Social Work Education.

Programs have been approved by the Pennsylvania Department of Education  
and the State Board of Nurse Examiners.

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# GRADUATE CALENDAR

1992 - 1993

## 1992 FALL SEMESTER

Aug. 31	Classes begin at 8 a.m.
Sept. 7	Labor Day - no classes
Oct. 2	Last day to submit application for December graduation
Oct. 24	Last day to withdraw from a class
Nov. 25	Thanksgiving recess begins at 1:50 p.m.
Nov. 30	Classes resume at 8 a.m.
Dec. 7	Last day for completion of master's thesis, departmental paper, and/or comprehensive examination
Dec. 12	Last day of classes
Dec. 13	Reading Day
Dec. 14	Final examinations begin
Dec. 19	Final examinations end
Dec. 20	Commencement

1993 SUMMER SESSIONS begin June 1 and end Aug. 20

## 1993 SPRING SEMESTER

Jan. 18	Classes begin at 8 a.m.
Feb. 12	Last day to submit application for May graduation
March 17	Last day to withdraw from a class
March 6	Spring recess begins
March 15	Classes resume at 8 a.m.
May 7	Last day for completion of master's thesis, departmental paper, and/or comprehensive examination
May 8	Last day of classes
May 9	Reading Day
May 10	Final examinations begin
May 15	Final examinations end
May 15	Commencement

1993 - 1994

## 1993 FALL SEMESTER

Aug. 30	Classes begin at 8 a.m.
Sept. 6	Labor Day - no classes
Oct. 1	Last day to submit application for December graduation
Oct. 26	Last day to withdraw from a class
Nov. 23	Thanksgiving recess begins at 10 a.m.
Nov. 29	Classes resume at 8 a.m.
Dec. 3	Last day for completion of master's thesis, departmental paper, and/or comprehensive examination
Dec. 11	Last day of classes
Dec. 12	Reading Day
Dec. 13	Final examinations begin
Dec. 18	Final examinations end
Dec. 19	Commencement

1994 SUMMER SESSIONS begin May 31 and end Aug. 19

## 1994 SPRING SEMESTER

Jan. 17	Classes begin at 8 a.m.
Feb. 11	Last day to submit application for May graduation
March 15	Last day to withdraw from a class
March 26	Spring recess begins
April 4	Classes resume at 8 a.m.
May 6	Last day for completion of master's thesis, departmental paper, and/or comprehensive examination
May 7	Last day of classes
May 8	Reading Day
May 9	Final examinations begin
May 14	Final examinations end
May 14	Commencement

*The university reserves the right to adjust calendar dates as necessary. To verify dates that pertain to your program, consult your graduate adviser.*

# GRADUATE PROGRAMS

## Master's Degree Programs

Bloomsburg University offers master's programs in the arts, business, science, and education.

The Master of Arts is offered in:

- Art Studio
- Art History
- Communication Studies

The Master of Business Administration is offered in:

- Business Administration

The Master of Education is offered in:

- Biology
- Business Education
- Curriculum and Instruction
- Elementary Education
- Reading

The Master of Science is offered in:

- Audiology
- Biology
- Early Childhood Education
- Education of the Hearing Impaired
- Exercise Science and Adult Fitness
- Instructional Technology
- Nursing
- Special Education  
(Behavior disorders, learning disabilities, mental retardation, gifted/talented, exceptional persons)
- Speech Pathology

## Cooperative Doctoral Program in Education

Bloomsburg also offers a Doctor of Education in cooperation with Indiana University of Pennsylvania (IUP). This is a cooperative doctoral program in elementary education that combines the resources of both institutions. The degree is granted by IUP.



## Supervisory Certificate Programs

The Supervisory Certificate Program provides frontline supervisors with the many diverse skills that are essential to administer programs and departments, and to successfully manage both professional and nonprofessional employees.

Supervisory Certificate Programs are offered in these areas:

- Communication
- Curriculum and Instruction

- Early Childhood Education
- Elementary Education
- Foreign Language
- Mathematics
- Reading
- School Health Services
- Science
- Social Studies
- Special Education



# The University

## SCHOOL OF GRADUATE STUDIES

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Graduate programs at Bloomsburg University of Pennsylvania will provide you with the challenge and the opportunity to use your skills and talents to the fullest. You will be encouraged to set high goals and to work hard to achieve those goals. Our programs are designed to help you attain excellence in your chosen field.

In return, Bloomsburg will provide you with the opportunity to grow and the chance to reach your full potential.

Graduate studies at Bloomsburg — in the arts, sciences, or humanities — stress critical thinking and creative problem solving. As a graduate student, you will be encouraged to engage in research and to write a thesis as part of your program of study.

Whether studying full time or part time, you will be prepared to provide leadership in your profession and to make important contributions to society.

Bloomsburg University of Pennsylvania is one of 14 universities in the Pennsylvania State System of Higher Education. We have the best of both worlds: our association with the State System gives us the resources and the ability to provide excellent undergraduate and post baccalaureate education; yet we're small enough to treat every student as an individual.

We offer 64 undergraduate programs and master's degree programs in 18 fields of study. In cooperation with Indiana University of Pennsylvania, Bloomsburg offers a doctoral program in elementary education. Educational supervisory certificates are also available. The School of Graduate Studies is a member of the prestigious Council of Graduate Schools.

Granted university status in 1983, Bloomsburg is organized into three colleges: Arts and Sciences, Business, and Professional Studies; and two schools, Graduate Studies and Extended Programs.

### Location and Environment...

The Town of Bloomsburg is located along the banks of the Susquehanna River, about 80 miles north of Harrisburg. You'll find a delicate balance in Bloomsburg — the kind of country living and friendliness you'd expect from a community of 12,000; along with the cosmopolitan flavor of a university campus of 6,700 full-time students from both rural and urban areas throughout the Commonwealth and across the nation. The School of Graduate Studies has approximately 650 students.

Bloomsburg provides limited on-campus graduate student housing during the regular school year. In addition, there are many fine places to live in our community. The university's Residence Life Office maintains a list of off-campus housing.

Meals are available for graduate students throughout the school year at our dining facility, Scranton Commons, or you may opt for the Kehr Union snack bar. Residence halls are open to graduate students during the summer sessions. For more information about housing, contact the Director of Residence Life, Luzerne Residence Hall, Bloomsburg University, Bloomsburg, PA 17815, (717) 389-4089.

Complete information about graduate student life at Bloomsburg University can be found in the *Graduate Student Handbook* which will be available upon acceptance in graduate school. Bloomsburg is served by two interstate bus lines, and two community airports are within an hour's drive.





# ACADEMIC SUPPORT SERVICES

## Harvey A. Andruss Library...

The Harvey A. Andruss Library houses more than 326,142 bound volumes, 1.6 million microtexts, and 1,703 periodicals. The library also has state and government documents, a collection of more than 5,600 phonograph records, a pamphlet file of approximately 7,600 items, a juvenile and young adult book collection, and a special collection of first editions, autographed copies, and illustrated books. On-line access to more than 300 information databases through DIALOG is available. Databases cover most fields and are particularly thorough in the areas of business and the sciences and for bibliographic citations of journal articles.

Andruss Library provides 389 study stations on three levels. The third level has been designated the "Quiet Level" and is furnished with individual carrels and study tables. Students are requested to assist in maintaining this floor as a quiet study area. Eating and drinking are limited to the Tiffany Room and smoking to the Smoking Room, both on the ground level.

Library faculty at the Reference Desk are available during most library hours to answer questions, assist students searching for information and resources, and advise regarding research projects.

Library orientation through interactive video and a self-guided tour is available. The library recently acquired indexes on CD-ROM available at eight computer work stations. Data searching is also available through the Reference Desk. The charge for photocopying is 5 cents, and the charge for microform copying is 10 cents (paper copy) and 25 cents (microfiche copy). Assistance in using the library's Public Access Online System (PALS) automated catalog is available at the Reference Desk.

## Institute for Comparative and International Management Studies...

The Institute for Comparative and International Management Studies (ICIMS) has been created to fulfill Bloomsburg University's missions and goals through sponsorship and initiation of activities aimed at increased understanding of cross-cultural and comparative management issues. The institute initiates, coordinates, and administers joint degree programs with overseas universities in business administration; sponsors management research projects within the United States and at overseas sites; provides consulting services and workshops in all areas of management; and develops and administers quality executive development and training programs as required by a particular country.

## Curriculum Materials Center...

The basic objective of the Curriculum Materials Center is to locate, acquire, catalog, and make accessible curricular and instructional materials to preservice and inservice teachers. The resources housed in the center include elementary and secondary textbooks, a multicultural curriculum materials collection, curriculum guides, games, instructional materials kits, tests, and computer software. A cluster of Macintosh microcomputers and a laser printer are also available.

## Reading Clinic...

The Reading Clinic offers free diagnostic evaluation of reading skills of school-age children and adults. Free remedial tutoring is also provided (Saturday mornings) on a space-available basis. Consultation with the parents of school-age children is included in the evaluation

process. The services of the clinic are available September through August.

## Speech, Hearing, and Language Clinic...

The Speech, Hearing, and Language Clinic provides services to students, faculty, staff, and the community. Available services include evaluation and therapy for speech, voice, language, and fluency; speech reading and auditory training for the hearing impaired and parent counseling. Audiological assessment includes special site of lesion testing, hearing aid evaluations, and fitting.

## Institute for Interactive Technologies...

The Institute for Interactive Technologies (IIT) provides research, training, education, and entrepreneurial assistance to solve training and operational problems that occur in education and industry through the application of various interactive technologies. The IIT designs, develops, and produces interactive technology-based applications that include computer-based interactive videodisc, artificial intelligence, and expert systems and computer-aided design systems. The IIT also provides workshops for interactive video training and opportunities for assistantships for graduate students in the Master of Science program in instructional technology.

## Television and Radio Services...

The Office of Television and Radio Programs and Services provides assistance with the production of instructional and other campus-oriented television production. While priority is given to academic endeavors, the office also has a strong commitment to community service through program production and other services.

The office is also administratively responsible for WBUQ, the student-operated campus radio station, 91.1 on the FM dial.

The facility houses three television studios, ranging from a sophisticated multi-camera studio for broadcast-level production, to a single-camera VHS studio where faculty and students can easily videotape projects in support of classroom assignments or evaluations. Also available are portable equipment, several video editing rooms, an audio recording studio, a video copystand, and a video paintbox device.

The office is the university's resource center for satellite videoconferencing, provides on-location taping of lectures, presentations and other academic activities, and can record informational programs off-air and off-satellite. Videotapes can be copied through the office (copyright permitting) and tapes recorded in incompatible overseas formats can be converted to the American television system.

The office also operates the campus video message center providing constantly updated information to television monitors located in several public areas on campus, as well as over BUTV, the university's cable television channel, which can be seen throughout the Bloomsburg and Berwick areas. The message center is suitable for the posting of class schedule changes, campus events, non-profit group activities, and general announcements and can be accessed by calling 389-BUTV.

### Audio Visual Resources...

Audio Visual Resources (AVR) provides Bloomsburg University faculty and staff with an array of audio visual equipment, materials, and services. Available equipment includes video and 16mm film playback, audio equipment, 35mm and Polaroid cameras, flashes and accessories, slide projectors, overhead and opaque projectors, screens, easels, and many other

useful items.

The AVR staff can arrange for film delivery and set-up in classrooms for faculty members as well as delivery of other audio visual equipment. There is also a repair center for university-owned audio visual equipment.

The facility houses an auto-tutorial lab where faculty may deposit audio visual materials for independent study by students. The lab accommodates the viewing of films, videos, slides, audio cassettes, and records. There is also a photo copystand area where materials can be photographed for the creation of slides.

Additional resources include: transparency machines, dry presses, posterboard mounting materials, and lamination services. The area houses a sign and poster-making unit that can instantly generate poster-size displays from letter-sized originals. If needed, the AVR staff can assist in the creation of the original document.

### Academic Computing Facilities...

Academic computing facilities are located throughout the campus. The main clusters of general access computer labs and work areas are in Ben Franklin Hall, Hartline Science Center, and McCormick Human Services Center. Computer classrooms and specialized labs are located in Bakeless Center for the Humanities, McCormick, Navy Hall, and Sutliff Hall.

The student lab in Room 1148 of McCormick has an AT&T 3B2/1000 minicomputer with PC computers directly connected to it. Room 1146 has a cluster of PC 386s.

The Ben Franklin student work areas are in Rooms 1, 2, and 3. Room 1 has PC and Macintosh computers networked to file servers. The PCs can be used to connect to the Unisys 2200 mainframe computer. Room 2 has a cluster of Macintosh computers networked to a laser printer. Room 3 has a cluster of Apple IIe computers and MS

DOS PCs.

Computer classrooms are available for general student use when they are not being used for class. All networked PCs and Macintosh computers have access to wordprocessing, spreadsheet, and graphics programs that are available on the network file servers. Many of the networked PCs also have access to the mini- and mainframe host computers as terminal users. Students can connect to these host computers from dormitories and off campus by using modems with a microcomputer.

Work areas are monitored by student consultants who are available to help students with problems related to the equipment and software. The schedules of open hours for labs and classrooms are posted at each location.

The AT&T 3B2/1000 is a minicomputer running the Unix operating system. All students can request an account on this computer. It is accessible from the PCs in McCormick, Room 1148, from PCs connected to the campus network and through dial-in modems. This system has e-mail, FORTRAN, COBOL, Ada, C, PL/I, Minitab, and the Oracle database.

The Unisys 2200 is the administrative computer for statistical analysis using SPSS and for FORTRAN programming. This computer can be accessed by networked PCs and dial-in modems and supports the PALS online library catalog.

Faculty computer labs are located in Ben Franklin, Room 9; Hartline, Room 238; Bakeless, Room 206; and McCormick, Room 2143. Each of these areas has MS DOS and Macintosh computers connected to a laser printer. The Ben Franklin work area has a scanner and an ImageMaker computer-to-slide maker. Faculty have access to an IBM RISC 6000 and DEC 5000 workstation that can be accessed over the campus network. There are several portable PC computers faculty can borrow for short periods.



# ADMISSION INFORMATION

Entrance requirements to graduate studies at Bloomsburg University vary according to the program to which you apply. Details of specific degree program requirements are discussed under the program descriptions presented later in this catalog.

## Minimal Entrance Requirements...

Minimal requirements for applicants for graduate study include an undergraduate quality point average (Q.P.A.) of at least 2.5 on a 4.0 scale and possession of a baccalaureate degree from an accredited college or university. In addition, most applicants will be required to take either the Graduate Record Exam, Miller Analogies Test, National Teacher Examination, or Graduate Management Admissions Test as required by the program.

## Application...

To pursue any graduate program of study, either degree or non-degree, an individual must complete an *Application for Admission to Graduate Studies*, pay the \$25 application fee, and have an official transcript of all undergraduate grades sent to us directly from the institution from which the individual graduated. In addition, an individual seeking admission to a degree program may need to fulfill any additional requirements established by the department which offers the degree program. The application with the \$25 fee is sent to the Business Office, Waller Administration Building. Transcripts and other supporting documentation are to be sent to the Office of Graduate Studies and *not* the department to which the student is applying. Completion of the admission process is required before the student is permitted to enroll for classes. Therefore, it is advised that prospective students com-

plete the application as soon as possible prior to the semester in which they intend to enroll. Applications that are not completed in one year are destroyed.



For more information regarding admission to graduate studies and an application form, contact the Office of Graduate Studies, Room 109, Waller Administration Building, Bloomsburg University, Bloomsburg, PA 17815; telephone (717) 389-4015.

## Foreign Applicants...

Individuals from foreign countries must complete a separate *Graduate Admissions Application for International Students*. This application form is available from the Office of Graduate Studies, Room 109, Waller Administration Building, Bloomsburg University, Bloomsburg, PA 17815, U.S.A. International applicants must have the results from the Test of English as a Foreign Language (TOEFL) and the Test of Spoken English (TSE), if available in the country of residence, submitted directly to the Office of Gradu-

ate Studies from the Educational Testing Service, P. O. Box 6151, Princeton, NJ 08541-6151, U.S.A. Bloomsburg University requires a minimum score of 550 on the TOEFL. Results from the test taken more than two years prior to the date submitted will not be considered. Acceptance to the university as a graduate student does not constitute a guarantee of financial assistance. It is rare for international students to receive a graduate assistantship during their first year of study.

*All international applicants must have their applications complete at least four months prior to the start of the semester for which they are applying.*

## Testing...

Graduate students will be required to complete any testing required by their department, i.e., Miller Analogies Test, Graduate Record Examination (GRE), National Teacher Examination (NTE), and Graduate Management Admissions Test (GMAT). Any fees for testing must be paid by the student.

## Graduate Student Categories...

Graduate students at Bloomsburg University may be admitted into one of the following four categories:

### NON-DEGREE (Category 510)

Persons who desire graduate level university instruction, but do not intend to earn a master's degree, may be admitted as non-degree students provided they present official transcripts denoting graduation from an accredited undergraduate college or university. This is the category for students who are auditing a course or enrolled in the supervisory certificate program. Non-degree students may apply to the Graduate School for transfer to

provisional or regular status. However, no more than 12 semester hours earned as a non-degree student may be later applied toward a master's degree, except when special permission is granted by the Assistant Vice President for Graduate Studies and Research.

#### **PROVISIONAL** (Category 520/530)

A student may be admitted as provisional in a degree program when the student possesses a baccalaureate degree but does not meet the criteria for regular admission. The student may have an undergraduate scholastic record which shows promise, but less than the 2.5 Q.P.A. required for regular admission. The reasons for a student's provisional status will be specified in the letter of admission. A provisional student must earn a minimum Q.P.A. of 3.0 in the first 6 to 9 semester hours of graduate study at Bloomsburg University in order to be eligible for regular student status. If this Q.P.A. requirement is attained, transfer to regular student status is automatic upon certification by the student's adviser that all deficiencies are corrected. If not attained, the student is subject to dismissal procedures.

#### **REGULAR** (Category 540)

A regular graduate student is a degree-seeking student who meets all criteria for regular admission to a program of the student's choice. The student must possess a baccalaureate degree from an accredited college or university; must have an undergraduate Q.P.A. of at least 2.5 on a 4.0 scale; have scores on the Graduate Record Examination (GRE), Graduate Management Admissions Test (GMAT), Miller Analogies Test (MAT), or National Teachers Examination (NTE) that are acceptable to the program of the student's

choice; have met all the criteria established by the degree program; and be under no requirements to make up deficiencies. Only a regular graduate student is eligible for admission to candidacy for a master's degree (see page 15). Regular graduate students must maintain a minimum Q.P.A. of 3.0. If a regular graduate student is not admitted to master's candidacy after completing 12 semester hours, the student may be transferred to non-degree status or be subject to dismissal procedures at the discretion of the Assistant Vice President for Graduate Studies and Research.

#### **DEGREE CANDIDATE** (Category 550)

Upon admission to candidacy for a master's degree, students are placed in a new category. If a student does not maintain a 3.0 Q.P.A. or if the student does not complete the graduate program in six years from the date of admission to graduate school, then the student can be transferred to non-degree status or be subject to dismissal procedures. Exceptions to this policy are with the approval of the Assistant Vice President for Graduate Studies and Research.

#### **Readmission...**

If a graduate student has not enrolled in any graduate course for a two-year period, the student's record is marked "withdrawn" and placed in the inactive files. A new application and \$25 fee must then be submitted for reactivation.

#### **Graduate Courses in the Senior Year...**

Current Bloomsburg University undergraduates may register for graduate courses under certain conditions. First, they can only take a graduate course during the semester they will complete their undergraduate degree, and they must need less

than a full load of classes to graduate. Secondly, a recommendation from their undergraduate adviser is required. These students must follow the regular graduate application process.

#### **Audits...**

Students may audit a graduate course for self-improvement. They must follow the regular graduate application process, pay all the required fees, and obtain the approval of the Assistant Vice President for Graduate Studies and Research. When you audit a course, you are not required to take tests. Upon completion of an audited course, a grade of V is recorded on your transcript.

#### **Off-Campus Courses...**

Bloomsburg often offers graduate courses at other locations in the Commonwealth. These graduate courses are open to students who are not enrolled in a master's program at Bloomsburg University; however, these students must obtain approval from the Assistant Vice President for Graduate Studies and Research to enroll in these classes and must complete an application for admission to Graduate Studies prior to the completion of the semester in which they are enrolled.

#### **Tuition...**

If you are a Pennsylvania resident, current tuition is \$146 per semester hour for under 9 and over 15 semester hours; for 9 to 15 semester hours, your cost is \$1,314 per semester (cost is subject to change). Out-of-state residents pay \$186 per semester hour for under 9 and over 15 semester hours, and \$1,677 per semester for 9 to 15 semester hours (also subject to change).



## Other Required Fees...

A student union fee of \$3 is required if you are taking from 1 to 4 semester hours; \$5 if you are taking from 5 to 8 semester hours; and \$10 if you are taking 9 or more semester hours.

A student health service fee of \$30 is obligatory if you are taking 9 or more semester hours. Those who are taking 8 or less semester hours do not have to pay this fee.

An academic equipment fee of \$25 per semester is required if you are taking 12 or more semester hours, or \$2 per semester hour for 1 to 11 semester hours.

Bloomsburg's graduation and diploma fee is \$10. (This does not cover the cost of renting academic regalia).

Late registration fee is \$10.

The university has an optional activities fee. The fee gives you the use of various recreational facilities on campus. It costs \$35 for two semesters or \$20 for one semester; the cost during summer sessions is \$2 per week.

All students taking 9 or more semester hours and all international students are required to have health insurance. Students may also opt to enroll in the university's student health plan. For more information, contact the Bloomsburg University Health Center, (717) 389-4451 or 389-4452.

Please be aware that all fees are subject to change without notice.

## Refunds...

All withdrawals require the approval of the Assistant Vice President for Graduate Studies and Research. Immediately after

withdrawal, a letter requesting a refund must be directed to the Assistant Vice President for Administration, Business Office, Bloomsburg University.

If you must withdraw from a course, you might receive a partial refund of course fees, depending on when you withdraw. Through the second week, you will receive 80 percent of your fee; in the third week, 70 percent; in the fourth week, 60 percent; and in the fifth week, 50 percent. There is no refund after the fifth week.

*A student who does not attend class for which he or she has been properly scheduled and does not submit a request to add/drop/withdraw courses by the appropriate dates is liable for billing and will not be eligible for refund.*

## Financial Help/Assistantships...

Bloomsburg University provides several options to help graduate students financially.

Graduate assistantships are available for full-time students. The number of assistantships in any particular program or department is variable and subject to change according to university needs. Stipends are awarded by the Assistant Vice President for Graduate Studies and Research upon the recommendation of departments having graduate programs. Stipends are available during the academic year and the summer sessions. Most students are granted assistantships for one semester at a time. A few graduate students, however, are granted assistantships under a two-semester contract.

Assistantships are either "half-time" which require 20 hours of work each week or "quarter-time" which require 10 hours of work each week. Both types of assistantships carry a tuition waiver. In addition, half-time graduate assistants receive a

stipend of \$2,117.50 for the semester while quarter-time graduate assistants receive a \$1,058.75 stipend for the semester. Summer stipends are \$825.24.

As part of the university's commitment to Affirmative Action, 10 graduate assistantships are targeted for minority graduate students. Blacks and other persons of color are encouraged to avail themselves of the opportunity to apply for these assistantships. The requirements and conditions of appointment for these assistantships are identical to regular assistantships.

Applications for regular and minority graduate assistantships are available at the Office of Graduate Studies and should be submitted to the department or program to which you are applying. Upon award of a graduate assistantship, you will be provided with the document "Criteria for Graduate Assistantship" by the Office of Graduate Studies. This document describes Graduate School policies for the administration of assistantships.

## Other Forms of Aid...

Some federal fellowships may be available in selected fields of study. Program coordinators should be contacted with regard to these. In addition, the Pennsylvania Higher Education Assistance Agency Loan Program is available as is the student work-study program. For more information regarding these forms of financial aid, contact the Office of Financial Aid, Ben Franklin Hall, Bloomsburg University, Bloomsburg, PA 17815.

## ACADEMIC POLICIES

Responsibilities of a graduate student at Bloomsburg University include:

- Each student will take the initiative to be aware of all university policies as described in this catalog and in class schedules.

- Each student will take responsibility for satisfying requirements for graduation in his or her field.

- While graduate advisers and staff will assist students, decisions on courses and other matters rest with the student.

- Each student should identify any undergraduate weakness or deficiency and discuss them with graduate advisers. (Such weaknesses might include, but are not limited to, not having proper undergraduate prerequisites for the desired graduate program.)

- Students are expected to attend all classes and take all examinations. Absences from graduate classes are granted only for urgent and verifiable reasons; students granted an absence from class can expect assistance from professors in making up work or examinations.

### Advisers...

Students who are provisional, regular, or candidates for a degree, along with students enrolled in the Supervisory Certificate Programs, are assigned graduate advisers.

The duties of the adviser are:

- to serve as a consultant in planning the student's program;
- to help students choose courses;
- to certify the courses students do choose as part of their degree program;
- to endorse the student's application for degree candidacy and graduation (if appropriate);
- and to arrange for a comprehensive examination (if required by the graduate program selected).

Upon acceptance into a program of

study, the program coordinator is usually assigned as a temporary adviser. A permanent adviser is selected by the student and temporary adviser taking into account the student's research and career interests. If this individual accepts the student as advisee, she/he is formally appointed permanent adviser by the Assistant Vice President for Graduate Studies and Research upon recommendation of the department involved.

Non-degree students are not assigned advisers. They may regard the Assistant Vice President for Graduate Studies and Research as their adviser for choosing courses and interpreting academic regulations.

### Scheduling, Registration, and Course Information...

Students register for graduate courses through the Registrar's Office, except for students in non-degree status who submit their registration materials directly to the Office of Graduate Studies.

*A student who does not attend class for which he or she has been properly scheduled and does not submit a request for add/drop/withdraw courses by the appropriate dates is liable for billing and will not be eligible for refund.*

The course load each semester for a full-time student is normally 12 semester hours. Full time status for graduate students is 9 credits and over. For students employed full time, however, the maximum course load each semester is 6 semester hours. For half-time graduate assistants, the course load is 6 to



9 semester hours; for quarter-time graduate assistants, 9 to 12 semester hours.

For summer sessions, the recommended course load is 1 semester hour per week of full-time coursework. (For example, if the summer session is six full weeks, the maximum course load during that session is 6 semester hours).

Credit is measured in terms of semester hours, at the rate of 1 semester hour for 15 hours of lecture/discussion work plus final examinations.

Courses numbered 500 or higher in this catalog (the last three digits of the course number) are graduate courses. Courses numbered lower than 500 that are listed in this catalog are open to both graduate students and advanced undergraduates. Graduate students may apply only 12 semester hours of courses numbered 400 to 500 that are listed in this catalog toward a master's degree.



## Transfer of Credits...

Graduate students may transfer up to 9 semester hours in graduate courses taken at another approved college or university with the approval of the adviser and the Assistant Vice President for Graduate Studies and Research. *The request for transfer of graduate courses must be made at the time of the application for candidacy and submitted on a form for that purpose available in the Office of Graduate Studies.*

After formal admission to graduate school, all requests to take and transfer graduate credits must be preapproved by the program coordinator. Students must have taken the course(s) in residence and the content of the course(s) must match the required areas of study in the student's master's program at Bloomsburg. Transfer credit must be capable of counting toward a graduate degree at the institution at which the course was taken. Also, students must have earned a grade of B or higher. Credit for a pass/fail grade is not transferable. In general, workshop format courses are not acceptable in transfer; however, if the workshop fulfills the following requirements, it may be considered for transfer to Bloomsburg University:

- The workshop should consist of 45 contact hours (15 contact hours per semester hour) for a 3-semester hour course;
- The workshop must include exposure to the disciplinary research literature appropriate to the course;
- The workshop must include the opportunity for outside work such as term or research papers or other major assignments appropriate to a graduate course;
- The workshop must be taught as part of a master's degree curriculum of the university at which the course was taken. Professional development workshops are not acceptable.

A maximum of 12 semester hours may be transferred from graduate programs at Bloomsburg University toward a second master's degree.

## Grades...

Grades for graduate courses are:

A—Distinguished, scholarly work that exhibits independence and intellectual maturity (4 quality points)

B—Good (3 quality points)

C—Fair, acceptable work toward a master's degree program, within limits (2 quality points)

D—Not acceptable work toward a master's degree program (1 quality point)

E—Failing work (0 quality points)

F—Failing grade in thesis/research

I—Incomplete; work must be completed within four months unless the Assistant Vice President for Graduate Studies and Research extends the period for adequate reason. If the work is not made up, the grade is changed to N, and the student is denied further opportunity to complete the work.

P—Passing grade in thesis/research

RI—Removal of an incomplete grade

N—No grade, no credit

R—Research in progress

W—Withdrawn with approval of the Assistant Vice President for Graduate Studies and Research

The graduate student must apply to the Assistant Vice President for Graduate Studies and Research for permission to withdraw. If this permission is requested before midpoint of the semester, the grade is W. If the withdrawal is after the midpoint of the semester, the grade is W, providing the student is passing the course, and E otherwise. The Registrar establishes the semester's midpoint.

V—Audit

CR—Course repeated

A course may be repeated only once.

To calculate your Q.P.A., follow this process: 1. multiply the number of quality points for each grade by the number of semester hours for that course; 2. add these points; 3. divide this total by the sum of the semester hours for all grades used in your computation. When a course has been repeated, use only the last entry.

## Repeat of Courses...

A maximum of one course in which grades of D or E have been recorded or a maximum of two courses in which a grade of C has been recorded (totalling not more than 6 semester hours) may be repeated upon application to the Assistant Vice President for Graduate Studies and Research. The application shall be approved upon request in writing by the student's graduate program coordinator and department chairperson.

The initial grade remains on the transcript as part of the student's permanent record. The grade of the repeated course is part of the permanent record and is used to calculate the student's quality point average. A course may be repeated only once. A course taken at Bloomsburg University in which a grade of D or E has been earned must be repeated at Bloomsburg University. Although this is a general graduate school policy, individual departments or graduate programs may implement more stringent requirements.

## Academic Grievance Procedure...

Alleged academic injustices relating to grades or professional conduct should be resolved informally, if possible. The student should first discuss the matter with the concerned faculty member, appropriate chairperson, and college dean or the Assistant Vice President for Graduate Studies and Research. In order for the matter to be resolved expeditiously, the consultation(s) should take place as soon as

possible after the alleged incident has occurred. If informal attempts to resolve the matter are unsuccessful, the student should consult with the Assistant Vice President for Graduate Studies and Research who will inform the student of procedures for initiating a formal grievance with the Academic Grievance Coordinator for a hearing before the Academic Grievance Board.

### **Satisfactory Academic Progress...**

Satisfactory academic progress at the graduate level is evaluated on the basis of several criteria:

- a graduate student's ability to earn the minimum of credit hours necessary to the degree program with a minimum quality point average of 3.0. Any grade of D or E must be repeated;
- a graduate student's ability to successfully meet the requirements at the appropriate time of all comprehensive examinations of the degree program with acceptable grades;
- a graduate student's ability to complete the thesis requirements of the degree program with a passing grade.

Non-degree students (Category 510), except for those in supervisory certificate programs, are excluded from consideration for satisfactory progress.

### **Academic Probation...**

A graduate student not maintaining satisfactory academic progress may be placed in academic probationary status. Enrollment is limited to a maximum of 9 semester hours for the grading period in probationary status. A student on academic probation is not eligible to hold a graduate assistantship. To be removed from academic probation, a graduate student with a quality point average deficiency must attain the minimum overall quality point average of 3.0—as required by the School of

Graduate Studies for regular graduate students and degree candidates. A student who attains a 3.0 Q.P.A. or higher for the first grading period in academic probationary status, but does not attain the overall Q.P.A. as required, may be recommended by his or her academic adviser, the graduate program coordinator, and the department chairperson to the Assistant Vice President for Graduate Studies and Research for continuation on probation for one additional grading period.

Graduate students who fail to meet the minimal standards for satisfactory progress will be notified by the Registrar's Office or the Assistant Vice President for Graduate Studies and Research. Failure to request academic probation will result in academic dismissal. Such students may submit a request in writing to their academic advisers to be granted academic probation. Upon recommendation of the academic adviser, graduate program coordinator, and department chairperson, and approval by the Assistant Vice President for Graduate Studies and Research, probationary status will be granted. Exceptions to these procedures under extraordinary circumstances will be by written request to the Assistant Vice President for Graduate Studies and Research.

### **Academic Dismissal...**

A graduate student not maintaining satisfactory progress, who is not permitted to enroll in probationary status, is excluded from registration, and the student's academic record is marked "academic dismissal."

Dismissal is automatic if the overall Q.P.A. is below the minimum after two grading periods in probationary status or after failing to pass the Comprehensive Examination two times while in probationary status. A graduate student under academic dismissal is not eligible to attend

courses offered in the School of Graduate Studies for a period of at least one calendar year. A dismissed graduate student may, after a period of one year, reapply to the School of Graduate Studies in order to undertake studies in a new degree program or to further studies in a non-degree status. A graduate student is not permitted to register for any courses in a program from which he or she was dismissed.

Under exceptional circumstances and with the approval of the Assistant Vice President for Graduate Studies and Research, a program may readmit a dismissed student. In the latter instance, the normal six-year limitation for expired courses shall be applied. Graduate students dismissed for academic reasons may appeal their dismissal within one year, in writing, to the Graduate Council. The decision of the council is final.

### **Examinations...**

As part of the master's degree requirement, a comprehensive examination is likely to be required. Also, an examination in defense of a master's thesis is required of students who choose to write a thesis.

### **Master's Thesis or Departmental Paper...**

Normally, the master's thesis consists of an independent scholarly investigation which includes the experience of collecting, assembling, interpreting, and presenting a body of information to solve a formal research problem in the student's academic or professional field. Alternatively, it can include the preparation and exhibition or presentation of creative works in certain programs. The School of Graduate Studies requires that a thesis be a minimum of 6 semester hours. If the thesis is greater than 6 hours, only 6 semester hours may be counted toward degree requirements.

If a master's thesis is included in the



student's program, a committee is appointed by the Assistant Vice President for Graduate Studies and Research from individuals nominated by the student's adviser. A "Form for the Appointment of a Thesis Committee" is available for this purpose from the Office of Graduate Studies. The committee guides the study, approves the thesis in both form and content, arranges for the defense, certifies satisfactory completion of the thesis, and determines the grade. Information about "Master's Thesis: Procedures" is available from the Office of Graduate Studies and should be read by all graduate students prior to beginning work on a thesis project. *Final copies of every thesis must utilize the format as presented in "Master's Thesis: Procedures," and must be printed on 100 percent cotton paper suitable for archiving such as that available at the University Store.*

Some master's degree requirements include a departmental paper. Such a paper is interpreted as one that grows out of a course and therefore does not require special registration or carry its own credit. Completion of a departmental paper must be certified by the adviser as part of the application for graduation.

### Human or Animal Research...

In cases where a graduate student's research requires the use of any human or animal subjects, the student must seek appropriate approvals through the Human Subjects Committee and/or the Institutional Animal Care and Use Committee. Students should discuss the application process with their faculty adviser and obtain the appropriate approval application forms from the Office of Grants in Waller Administration Building.

### Admission to Candidacy...

Students should apply for candidacy after completing 9 semester hours of graduate work. Students *must* apply for candidacy on a form available from the Office of Graduate Studies before completing 12 semester hours. Under certain circumstances, the Assistant Vice President for Graduate Studies and Research may grant an extension.

Students must meet the following conditions for admission to candidacy for a master's degree:

- The student must be admitted as a regular graduate student.
- Transcripts of all undergraduate and previous graduate study must be on file with the Assistant Vice President for Graduate Studies and Research.
- Students must have a minimum Q.P.A. of 3.0.
- The application must be endorsed by the student's adviser.
- Students applying for candidacy for the Master of Education program must have evidence of a valid teaching certificate. Please check with the appropriate program coordinator for verification of this requirement.

Admission for candidacy to a master's degree program might be deferred if needed courses are unavailable because of limited class size. If this happens, the student will be put on a priority waiting list for required courses.

Once the student has been accepted as a candidate for a master's degree, the student is eligible to use the service of Bloomsburg University's Career Development and Placement Center.

### Time Limitation...

Each student is expected to complete the requirements for a master's degree within

six calendar years. This includes courses accepted by transfer. Bloomsburg University will grant extensions for sufficient reason, upon application to the Assistant Vice President for Graduate Studies and Research and with the approval of the student's adviser. This extension must be requested before the six-year period ends.

### Graduation Requirements...

Students who are completing their degree programs must apply for graduation at the Office of the Registrar, Room 6, Ben Franklin Hall, telephone (717) 389-4263, and pay the graduation fees **prior** to the deadline listed in the university calendar.

Each program that leads to a master's degree at Bloomsburg University requires at least 30 semester hours of graduate credit. Courses with grades below C earn no credit toward a master's degree.

Students must have a cumulative Q.P.A. of 3.0 or higher to graduate with a master's degree from Bloomsburg University.

The Graduate Calendar on page 4 of this catalog gives deadlines for applying for graduation, completion of thesis and departmental papers, comprehensive examinations, etc. These are deadlines, but students should plan to complete each segment before the due date, whenever possible.

### Graduate Transcripts...

Students may request a graduate transcript through the Registrar's Office. This may be done by letter, or by filling out a form available at the Registrar's Office. The cost per transcript is \$2.

# Degree Programs

## MASTER OF ARTS

### Art History Art Studio

Program Coordinator: Stewart L. Nagel, M.F.A.  
(717) 389-4187

### Program Description

The Master of Arts program in art history develops an advanced knowledge base, writing proficiency, and research skills enabling the student to pursue a variety of professional options. A minimum of 30 semester hours is required including a thesis based on the student's area of interest. In conjunction with the student's committee, an individualized program of study is designed. Opportunities for interdisciplinary and off-campus experience are available.

The Master of Arts program in art studio emphasizes the development of creative and scholarly competencies in one or more of the following studio areas: drawing, crafts, ceramics, graphics, painting, or sculpture with concurrent or parallel work in the areas of art history, philosophy and psychology of art, art education, and visual aesthetics for a minimum of 30 semester hours.

### Faculty Research Interests

Karl A. Beamer, M.F.A., associate professor.  
Ceramics/sculpture

Carol B. Burns, M.F.A., assistant professor.  
Crafts

Gary F. Clark, M.A., assistant professor.  
Computer/video technology, drawing

Robert B. Koslosky, Ph.D., associate professor.  
Art education/art history

Stewart L. Nagel, M.F.A., professor.  
Graphics

Christine M. Sperling, Ph.D., assistant professor.  
Renaissance art history

Barbara J. Strohman, M.F.A., associate professor.  
Drawing

Vera L. Viditz-Ward, M.F.A., assistant professor.  
Photography

Charles T. Walters, Ph.D., assistant professor.  
American/Oriental art history

Kenneth T. Wilson, M.S., associate professor.  
Painting

## Special Requirements

### Admission...

Students may apply under two admission plans. Plan I is tailored for individuals who have earned a bachelor's degree in art (B.A., B.F.A., or B.S. in art education) from an accredited institution of higher education. Plan II is for individuals who have not graduated with a curriculum in art. In addition to meeting the general admission requirements for the School of Graduate Studies, these applicants must also comply with program requirements established by the Department of Art.

Initial admission materials must include official academic transcripts of all undergraduate coursework and a one-page statement of the applicant's objectives and philosophy. Those choosing the master's degree in art studio need to submit an 8" x 10" plastic sleeve of slides representative of their creative work. Upon acceptance, students are required to appear for a personal interview with the department chairperson, program coordinator, and an adviser in their major field. At this time, any deficiencies in the applicant's background will be noted and an appropriate course of study outlined. A thesis and an exhibition of creative work are required for art studio majors. A thesis and presented paper are required for art history majors.

### Retention and Candidacy...

Requirements of this program are the same as those for the School of Graduate Studies.

### Graduation . . .

Art studio majors will choose an area of concentration consisting of four levels of the selected specialization along with selected elective courses as suggested by their committee. Art history majors will specialize in an area of study along with advanced general studies. A minimum of 30 semester hours is required; this number may be exceeded depending on the student's program.

All other graduation requirements for this program are the same as for the School of Graduate Studies.

### Areas of Concentration for Advanced Study

The seven areas of concentration available to graduate students for advanced study in art studio include:

- 32.500, 01, 02, 03 Advanced Ceramics I, II, III, IV
- 32.510, 11, 12, 13 Advanced Drawing I, II, III, IV
- 32.520, 21, 22, 23 Advanced Crafts I, II, III, IV
- 32.530, 31, 32, 33 Advanced Graphics I, II, III, IV
- 32.540, 41, 42, 43 Advanced Painting I, II, III, IV
- 32.550, 51, 52, 53 Advanced Sculpture I, II, III, IV
- 32.580, 81, 82, 83 Advanced Photography I, II, III, IV
- 32.595 Directed Study in the Studio Arts

### Graduate Courses in Art History

- 31.560 Readings and Research in Contemporary Art History
- 31.565 Readings and Research in American Art History
- 31.570 Readings and Research in European Art History



- 31.575 Readings and Research in Oriental Art History
- 31.580 Readings and Research in Architectural Art History
- 31.585 Art and Culture of France
- 31.592 Readings and Research in Advanced Visual Aesthetics
- 31.595 Directed Study in Art History
- 30.590 Current Theories in Art and Art Education
- 30.591 Visual Arts of the Exceptional Child
- 30.595 Master's Thesis

The preceding courses in art studio and art history carry 3 semester hours, except for 32.595 Directed Study which carries variable credit and 30.595 Master's Thesis with 3 to 6 semester hours.

### Art Gallery, Permanent Art Collection, and Slide Collection

The department operates the Haas Gallery of Art, which features monthly exhibitions of varied art forms. A special exhibition of student art work is held annually, and an exhibition organized and planned by students in the art gallery course is held in the spring of each year. In addition, an art student intern maintains a small art gallery space in the Presidents' Lounge of the student union.

The Department of Art maintains an extensive permanent art collection of more than 400 pieces with works displayed throughout the campus. The department's slide collection numbers more than 50,000 units.



## MASTER OF ARTS Communication

**Program Coordinator:** Mary Kenny Badami, Ph.D.  
(717) 389-4188

### Program Description

The purpose of this program is to enhance the understanding of the philosophy, theory, and practice of the means by which human beings exchange information, ideas, and values through personal or mediated interaction. Using a variety of research tools, students discover the role communication plays in interpersonal, small group, public, and organizational situations. A master's degree in communication prepares graduates for doctoral study in communication and for careers in a number of areas including business, law, medicine, education, government, media, public relations, advertising, arts and entertainment, social and human services, high technology industries, and international relations and negotiations.

### Faculty Research Interests

**Mary Kenny Badami, Ph.D.**, professor.

Cross-cultural communication with focus on orientation programs; training and interviewing in organizational settings; gender and race as communication variables

**Dale A. Bertelsen, Ph.D.**, assistant professor.

Function and influence of rhetoric in contemporary society, particularly: rhetorical theory, political communication, nonverbal communication, communication technologies, and media criticism

**Janet Reynolds Bodenman, M.A.**, assistant professor.

Interpersonal and small group processes within organizations, with focus on conflict management, decision making, and employee selection and socialization

**Stuart Schrader, M.A.**, assistant professor.

Health care communication, interpersonal communication, communication consulting, communication via computer networking

**Howard N. Schreier, Ph.D.**, associate professor.

Contemporary rhetorical theory and criticism, and persuasion in the popular culture

**Kara Shultz, Ph.D.**, assistant professor.

Study of human symbol systems as they act in the creation, maintenance, and revision of cultures; specifically: rhetoric of social movements, feminist rhetoric, popular culture, storytelling, and cross-cultural communication

**James E. Tomlinson, M.A.**, associate professor.

Organizational and political communication, and the impact of communication technology on society

## Special Requirements of the Program

### Admission...

In addition to meeting the general admission requirements for the School of Graduate Studies, applicants for the Master of Arts in Communication program must submit:

- Graduate Record Examination scores (a minimum combined score of 950 on the verbal and quantitative tests).
- Three letters of recommendation from individuals who have the knowledge to comment on the applicant's potential to successfully complete a graduate program.
- Evidence of completion of two to three basic communication studies courses including, but not limited to, public speaking, interpersonal communication, persuasion, and business communication. Applicants without such preparation will be expected to enroll as auditors in 25.104 Interpersonal Communication and/or other course(s) as determined by the Graduate Committee.
- A one-page statement describing the applicant's objectives, goals, and direction for enrolling in the program.

Applicants who do not meet all of the requirements may request an interview with program faculty to discuss special circumstances or may petition, in writing, for a waiver of select entrance requirements.

### Retention...

In addition to meeting the general retention requirements for the School of Graduate Studies, a graduate student in communication must earn a minimum grade of B in each of the four core courses to remain in good academic standing. Students may be given the opportunity to retake a course after review of special circumstances by program faculty.

### Graduation...

- A minimum of 30 semester hours in graduate-level courses is required for graduation.

#### Required Courses (12 semester hours)

The following core courses are required for this degree program:

- 23.501 Nature of Communication
- 23.502 Interpersonal Communication
- 25.445 Organizational Communication
- 25.501 Introduction to Communication Research

#### Elective Courses (18 semester hours)

A minimum of 9 semester hours offered by the Department of Communication Studies must be elected.

- 25.502 Rhetorical Criticism
- 25.585 Special Topics in Communication
- 25.586 Special Topics in Communication
- 25.587 Special Topics in Communication

Special Topics courses include interviewing theory, political communication, nonverbal communication, communication and conflict, small group communication, cross-cultural communication, communication and the sexes, communication, technology and society, communication training in the organization, cultural foundations of the information society, rhetoric in a mediated society, and the rhetoric of social movements.

Up to 9 semester hours offered in other departments may be elected as approved by the student's adviser. Examples of such courses are:

- 45.500 Sociology of Mass Communication
- 46.440 Language and Culture
- 48.451 Laboratory Training in Group Processes
- 48.453 Organizational Psychology
- 53.580 Programming for Interactive Video
- 93.583 Human Resources Development

- A 6-credit thesis or a departmental research paper is optional but strongly recommended for those seeking advanced study beyond the master's degree.

- A comprehensive examination is required. During the semester in which the student completes 24 semester hours of coursework, or at its conclusion, an application for the test must be filed. The examination is a six-hour essay test that examines the candidate's knowledge of philosophy, theory, and application of material covered in at least three of the four core courses and other departmental courses the candidate has taken to that point. In the event of failure on the examination, or any part thereof, the student will be given one opportunity to retake the part(s) failed.

## MASTER OF BUSINESS ADMINISTRATION

**Program Coordinator:** Howard J. Kinslinger, Ph.D.  
(717) 389-4397

### Program Description

The Master of Business Administration (M.B.A.) at Bloomsburg University is an all-evening program which offers a minimum of four courses each semester and selected courses during the summer sessions for both full-time and part-time students. The degree program is planned to reflect the curriculum standards of the American Assembly of Collegiate Schools of Business. It is oriented toward the decision-making responsibilities of management. Consequently, it is broad-based and aims to develop a perspective by providing an opportunity to elect courses in an area of specialization. The program is administered by a program coordinator who also serves as the faculty adviser for all M.B.A. students.



## Faculty Research Interests

**Mainuddin Afza**, Ph.D., associate professor.  
Small business, policy and strategy

**M. Ruhul Amin**, Ph.D., professor.  
Small business, organizational behavior and development,  
operations management, international management

**Richard L. Baker**, Ph.D., professor.  
Governmental accounting, accounting education

**Stephen Batory**, D.B.A., associate professor.  
Consumer behavior and marketing research for small businesses

**Barbara E. Behr**, J.D., professor.  
Corporate organization, finance, mergers and acquisitions;  
computer law; insurance

**Charles Chapman**, M.A., associate professor.  
Small business, communication, organizational behavior

**Frank S. Davis**, Ph.D., professor.  
Artificial intelligence-simulation of human characteristics

**James S. Dutt**, Ph.D., associate professor.  
MIS, data communications, end user computing

**Karen Elwell**, J..D., associate professor.  
Labor relations, employment discrimination, constitutional law

**Mary K. Ericksen**, Ph.D., associate professor.  
International consumer/business behavior

**E. Burel Gum**, Ed.D., associate professor.  
Fund accounting

**David G. Hessel**, Ph.D., associate professor.  
Dividend policies, international finance

**Charles J. Hoppel**, Ph.D., associate professor.  
Advanced systems development methodologies using CASE  
technology, application of expert systems/artificial intelligence,  
relational database design

**Dennis B. Hwang**, Ph.D., associate professor.  
International accounting systems and issues

**Howard J. Kinslinger**, Ph.D., associate professor.  
Job satisfaction, motivation, organizational behavior

**Mark Larson**, Ph.D., associate professor.  
Industrial relations

**Stephen Markell**, Ph.D., associate professor.  
Business policies and strategies, mergers, organizational behavior

**Salim Qureshi**, Ph.D., associate professor.  
Marketing in nonprofit organizations, NPOs, models of  
industrial buyer behavior

**Bruce L. Rockwood**, J.D., professor.  
Banking law, torts, and products liability, international legal  
environment of business, reform of UCC

**Janice Shields**, Ph.D., associate professor.  
International accounting and taxation, environmental audits,  
accounting disclosure practices and policies

**Peter B. Venuto**, Ph.D., professor.  
Organizational behavior, managerial communication

**Pamela Wynn**, Ph.D., associate professor.  
Business society relationships, statistics

## Special Requirements

The M.B.A. program is currently under review. Some changes in courses and requirements are pending. Please contact the M.B.A. program coordinator for further information.

Enrollment in the program is limited; therefore, admission to courses is selective. The applicant must hold a baccalaureate degree from an accredited college or university. While no specific undergraduate major is prescribed, a minimum of 30 semester hours of background courses in basic business subjects is required.

## Admission...

Admission criteria include the Graduate Management Admissions Test (G.M.A.T.) score, the undergraduate record, the statements of two references, and a statement of job experience. The overall Q.P.A. for undergraduate work must be 2.50 or higher; or if based only on the last two years of undergraduate work, must be 2.75 or higher. Requirements are based on a combination of the undergraduate Q.P.A. and GMAT score. A minimal score of 950 must be achieved based on the formula: 200 times the Q.P.A. plus the GMAT score; or at least 1,000 points based on the formula: 200 times the last two years of undergraduate Q.P.A. plus the GMAT score.

## Retention and Candidacy...

Requirements for the M.B.A. program are the same as those for the School of Graduate Studies.

## Graduation...

The M.B.A. program is comprised of two levels of courses. Level I consists of background courses or experiences that are prerequisites to Level II. Students with an undergraduate major in business administration are likely to have had most Level I courses; they may be exempted from courses that duplicate undergraduate work. Level I must be completed before beginning Level II work. Level I courses include Financial Accounting or Principles of Accounting II, Principles of Management, Marketing Principles and Practices, Business Statistics, Business Law, Business Finance, two semesters of Principles of Economics, and two semesters of mathematics including one semester of calculus. In the *Undergraduate Catalog*, these courses are numbered respectively: 91.220 or 91.222, 93.344, 97.310, 40.346, 98.331, 96.313, 40.211 and 40.212, and 53.123; plus one advanced mathematics course. Level II consists of 36 semester hours of which 30 semester hours are required and 6 are elected.

### Required Courses (all 3 semester hours)

92.554	Management Information Systems
93.457	Business and Society
93.511	Statistical Analysis and Design
93.512	Managerial Economics
93.560	Operations Management
93.562	Organization Theory
93.566	Organizational Behavior
93.581	Policies
96.535	Financial Management
97.551	Marketing Management

### Elective Courses (all 3 semester hours)

Two electives must be chosen from available graduate courses in the College of Business. Examples of these are as follows:

91.501	Financial Accounting
91.502	Advanced Financial Accounting
91.503	Government and Fund Accounting
91.524	Managerial Accounting
93.561	Operations Planning and Control
93.563	Operations Research
93.583	Human Resources Development
96.550	Security Analysis and Portfolio Management
96.565	Seminar in Finance

Or, other graduate courses may be taken with the permission of the M.B.A. program coordinator.





# MASTER OF EDUCATION

## Biology

**Program Coordinator:** George P. Chamuris, Ph.D.  
(717) 389-4735

### Program Description

The Master of Education program in biology is intended to enhance the competence of secondary school teachers of biology by extending their scholarship in content and method through formal courses, independent study, and research.

### Faculty Research Interests

**Joseph P. Ardizzi**, Ph.D., assistant professor.  
Fungal genetics, microbiology, and cell biology

**George P. Chamuris**, Ph.D., assistant professor.  
Ecology, population biology, speciation and systematics of wood- and bark-inhabiting fungi

**James E. Cole**, Ph.D., professor.  
Vertebrate ethology

**Judith P. Downing**, Ph.D., professor.  
Immunology, bacterial resistance to antimicrobial agents, and infectious diseases caused by bacteria

**Phillip A. Farber**, Ph.D., professor.  
Cytogenetics

**George J. Gellos**, Ph.D., associate professor.  
Developmental plant morphology

**Frederick C. Hill**, Ph.D., professor.  
Vertebrate zoology, malacology, and aquatic biology

**Thomas S. Klinger**, Ph.D., associate professor.  
Marine biology, physiological ecology, and biometry

**Mark S. Melnychuk**, Ph.D., associate professor.  
Nutrition and reproductive physiology

**Lynne C. Miller**, Ph.D., associate professor.  
Medical parasitology, parasite immunology and physiology, experimental pharmacology and toxicology

**Louis V. Mingrone**, Ph.D., professor.  
Phytochemical systematics, floristics

**James E. Parsons**, Ph.D., associate professor.  
Clinical microbiology and medical mycology

**Robert G. Sagar**, M.S., associate professor.  
Ecology, ornithology, and bird behavior

**Cynthia A. Surmacz**, Ph.D., associate professor.  
Cell physiology and exercise physiology

**Margaret L. Till**, Ph.D., assistant professor.  
Endocrinology, adrenocortical mechanisms, comparative animal physiology

## Special Requirements

### Admission...

An undergraduate degree in biology with Level I Certification is required for admission to the program. Undergraduate deficiencies must be rectified prior to admission to candidacy without credit toward the degree. Scores from the general and the biology subject portions of the Graduate Record Examination are required for admission.

### Retention and Candidacy...

Requirements for this program are the same as those for the School of Graduate Studies. An oral examination to assess the student's knowledge of general biology is required for admission to candidacy.

### Graduation...

A minimum of 30 semester hours in graduate-level courses is required. A minimum of 18 semester hours must be taken from 500-level courses (*see list below*) and include two required education courses, 60.501 Major Philosophies of Education and 79.591 Research in Education.

Either 50.591 Directed Study in Biology or 50.592 Master of Education Thesis is required to fulfill the research component. An oral defense of the research component is required; a written and/or comprehensive examination may also be required. Otherwise there are no required biology courses; all are considered elective courses.

50.411	Radiation Biology
50.432	Microbial Genetics
50.441	Cytogenetics
50.455	Environmental Microbiology
50.462	Plant Anatomy
50.463	Biological Photographic Techniques
50.481- .489	Advanced Special Topics
50.521	Systematic Botany
50.530	Evolution
50.531	Developmental Biology
50.532	Molecular Genetics
50.549	Entomology
50.550	Mycology
50.551	Conservation of Biological Resources
50.552	Limnology
50.557	Biology of Lower Vertebrates
50.558	Fungal Ecology
50.559	Ornithology
50.561	Animal Behavior
50.570	Medical Parasitology
50.571	Endocrinology
50.572	Comparative Animal Physiology
50.573	Systemic Physiology
50.575	Cell Physiology
50.576	Neuromuscular Physiology
50.591	Directed Study in Biology
50.592	Master of Education Thesis
50.593	Master of Science Thesis

### Marine Science Courses

These courses are offered at the Marine Science Center, Wallops Island, Va. See page 56.

- 55.431 Ecology of Marine Plankton
- 55.500 Problems in Marine Science
- 55.540 Environmental Science Education
- 55.570 Research Cruise—Biology

## MASTER OF EDUCATION

### Business Education

**Program Coordinator:** John J. Olivo Jr., Ph.D.  
(717) 389-4127/4121

### Program Description

The program is designed to prepare students in the design, implementation, and management of office systems in a business environment. The program offers practical and realistic learning activities including hands-on instruction in new information technology and field-based research projects.

*This program does not require evidence of a valid teaching certificate.* This program may lead to certification in business education with the completion of additional coursework. For information regarding certification, please contact the program coordinator.

### Faculty Research Interests

**Ellen M. Clemens**, D.Ed., associate professor.  
Methodology and business education

**Donna J. Cochrane**, Ed.D., assistant professor.  
Training and development, business teaching methodology, office technologies

**Nancy A. Dittman**, Ed.D., associate professor.  
Business communications, international communications

**Roger W. Ellis**, Ed.D., associate professor.  
Records and information management

**Dennis O. Gehris**, Ed.D., assistant professor.  
Work attitude assessment, business teaching methodology, software applications in business

**John J. Olivo Jr.**, Ph.D., professor.  
Ergonomics, impact of technology on organizations' policies and procedures, telecommunications, analyzing and improving workflow, end-user computing

### Special Requirements

#### Admission...

Applicants must satisfy the general admission requirements for the School of Graduate Studies as well as the following requirements for the Master of Education in Business Education:

- A minimum Q.P.A. of 2.5 on a 4.0 scale.
- Completion of the Graduate Record Exam general knowledge section with a minimum score of 1,000 or the Miller Analogies Test with a minimum score of 30.
- Submit a typed letter of intent stating professional background, experience, and rationale for wanting to be admitted to the program.
- Submit two letters of recommendation with the names, addresses, positions, and telephone numbers of the references who have knowledge of the applicant's academic and professional background.
- Applicants who do not meet these requirements may be admitted as provisional after an interview with the program coordinator.

#### Retention and Candidacy...

Requirements for this program are the same as those for the School of Graduate Studies.

#### Graduation...

A minimum of 30 semester hours in graduate-level courses is required. The program consists of two required courses, two courses in the electives area, and an office systems emphasis consisting of six courses.

#### Required Courses (6 semester hours)

- 79.591 Foundations of Educational Research
- 90.581 Seminar in Business Education

#### Approved Graduate Electives (6 semester hours)

Graduate-level courses to fulfill the elective requirements will be chosen by the student and the program coordinator based on career needs.

#### Office Systems Emphasis (18 semester hours)

- 94.500 Introduction to Office Systems and Information
  - 94.510 Office Systems Applications
  - 94.520 Administrative Communications
  - 94.530 Telecommunications
  - 94.540 Training and Development in Office Systems
  - 94.550 Integrated Office Systems
- Students should enroll in this course during the last semester of the degree program.*

#### Certification...

Students who wish to receive a Level I Professional Teaching Certificate in business education (accounting, data processing, marketing, and office technologies) by the Pennsylvania Department of Education must fulfill these requirements in addition to the M.Ed. in Business Education:

- Additional coursework in the areas of education and business as determined by the program coordinator after a review of transcripts.
- Completion of the business teacher education packet.
- Passing the National Teacher Examination core battery and the specialty area for business education.



# MASTER OF EDUCATION

## Curriculum and Instruction

**Program Coordinator:** John R. Hranitz, Ed.D.  
(717) 389-4030

### Program Description

The program is field-based and offered only at the University Center in Harrisburg, Pa. It is designed to enhance the professional curricular and instructional competencies of individuals who work with children, youth, and adults.

The program's field-based approach ensures the needs of school-based faculty are continually addressed through faculty involvement in the following areas:

- Planning and implementation of the core courses;
- Advisement of theses;
- Development of research projects;
- Improvement of instruction;
- Development of curriculum;
- Continuous evaluation of the degree program; and
- Implementation of theory into the classroom.

The "field-based" core curriculum of this program will permit unique and interesting applications of theory and research to each classroom. Individuals motivated to improve the quality of instruction will find a format that will enable them to expand (1) their knowledge of the subject they are teaching, (2) their knowledge of the curriculum and its applicable methodology, (3) their skills in individualization through diagnosis and prescription, and (4) their skills in communicating with students, parents, and educational professionals.

The liberal arts core of 6 semester hours will increase the depth of the knowledge base and skills of each graduate student. Knowledge from several disciplines will be combined into a course that will permit the graduate student to develop new and often unique educational perspectives.

The individualized curriculum enables each graduate student to pursue 12 semester hours of graduate study within an area of concentration such as English, social sciences, mathematics and computer science, physical and life sciences, elementary, early childhood, reading, and humanities. Completion of the individualized curriculum requires that students enroll and pursue courses offered by other universities at the University Center or at their campuses in the Harrisburg area.

### Faculty Research Interests

Any graduate faculty member from the liberal arts and sciences or education departments may participate in this program.

## Special Requirements

### Admission...

Applicants must satisfy the general admission requirements for the School of Graduate Studies. A teaching certificate is not required for admission. The program does not provide Instructional Level I certification. The following additional criteria are also required:

- Meet with program coordinator to clarify requirements, review academic records, discuss transfer of any courses and initiate planning for any research projects and the thesis; and
- Attain a score of 30 or higher on the Miller's Analogy Test.

### Retention...

Graduate students must take a minimum of 9 semester hours per calendar year. A Q.P.A. of 3.0 or higher must be maintained. Students not taking a minimum of 9 semester hours per calendar year will be considered "inactive" after two years.

### Candidacy...

Application for candidacy must be made after completion of 9 to 12 semester hours. Only courses with a minimum grade of B are considered applicable to this program. Students must repeat all courses in which the grade of C or lower is earned. Up to 18 semester hours from accredited institutions, other than Bloomsburg University (9 transfer and 9 through bilateral agreements), will be accepted toward competing the degree requirements of this program. However, no courses will be transferred in which a grade less than a B was earned.

### Graduation...

Graduate students must be admitted to candidacy, complete 30 semester hours of approved course work, complete 6 semester hours for the thesis, and apply for graduation. All deficiencies, monetary and academic, must be satisfied before the degree can be granted.

The following courses constitute the 36-hour master's degree program in curriculum and instruction:

The Core Curriculum (4 courses required): 12 semester hours

- 79.593 Studies in Human Diversity
- 48.576 Theories of Human Learning
- 60.584 Curriculum and Instructional Theory, Design, and Development
- 79.591 Research in Education

The Liberal Arts Curriculum (2 courses required): 6 semester hours

The Individualized Curriculum — Area of Concentration (4 courses required): 12 semester hours

- 79.599 Thesis: 6 semester hours

# MASTER OF EDUCATION

## Elementary Education

**Program Coordinator:** Neil Brown, Ed.D.  
(717) 389-4876

### Program Description

The program enhances the professional competence of an individual as a teacher and a leader through its emphasis on integrated learning experiences in the study of the child. Areas of study include elementary school curriculum and its trends, new techniques, current research, and opportunities for study in the teacher's academic field of interest.

### Faculty Research Interests

**Raymond E. Babineau**, Ed.D., professor.  
Supervision and curriculum

**C. Meade Beers**, D.Ed., assistant professor.  
Foundations, administration, curriculum and supervision

**Neil Brown**, Ed.D., assistant professor.  
Social studies and early childhood education

**Chris A. Cherrington**, Ph.D., assistant professor.  
Reading

**Robert L. Clarke**, Ed.D., assistant professor.  
Supervision

**Henry D. Dobson**, Ph.D., assistant professor.  
Computing and supervision

**Gary J. Doby**, Ph.D., assistant professor.  
English and supervision

**Hussein Fereshteh**, Ph.D., assistant professor.  
Foundations of education

**Bonita B. Franks**, Ph.D., associate professor.  
Reading

**Nancy G. Gilgannon**, D.Ed., professor.  
Measurement of education

**Mary Harris**, Ed.D., assistant professor.  
Foundations of education

**John R. Hranitz**, Ed.D., professor.  
Early childhood education and supervision

**Gorman L. Miller**, Ed.D., professor.  
Mathematics and supervision

**Frank Misiti**, Ph.D., assistant professor.  
Science education

**William S. O'Bruba**, Ed.D., professor.  
Reading, early childhood education, and supervision

**Gilda Oran**, Ed.D., assistant professor.  
Supervision and early childhood education

**Egerton Osunde**, Ph.D., assistant professor.  
Social Studies and supervision

**Rosemary Radzievich**, Ed.D., assistant professor.  
Reading and supervision

**Edward J. Poostay**, Ph.D., professor.  
Reading

**Donald L. Pratt**, Ph.D., assistant professor.  
Computing and supervision

**Robert L. Remaley Jr.**, Ed.M., assistant professor.  
School law and supervision

**Lorraine A. Shanoski**, Ed.D., assistant professor.  
Early childhood education

**David E. Washburn**, Ph.D., professor.  
Foundations of education

**Mary Alice Wheeler**, Ph.D., assistant professor.  
Supervision

**Natalie White**, Ph.D., assistant professor.  
Supervision

**Bonnie L. Williams**, Ed.D., assistant professor.  
Mathematics and supervision

**Patricia K. Wolf**, Ph.D., assistant professor.  
Supervision

### Special Requirements

#### Admission...

Applicants must satisfy the general admission requirements for the School of Graduate Studies as well as the following requirements for admission to the M.Ed. in Elementary Education program:

- Possess the Instructor Level I Certification for teaching in the elementary schools of Pennsylvania.

- Meet with the program coordinator to clarify program requirements, review academic records, and outline a plan for completing degree work.

#### Retention...

Requirements of this program are the same as those for the School of Graduate Studies.

- Take the Miller Analogies Test before completing the 9 to 12 semester hours needed for application for degree candidacy (minimum score is 30).



## Graduation...

A minimum of 30 semester hours is required to complete this master's program.

### Required Courses:

- 60.501 Major Philosophies in Education
- 79.591 Research in Education  
(or adviser-approved alternative)
- 60.502 School and Society
- 60.506 Urban Education
- 60.514 Home, School, and Community Relations

Also required are 6-12 semester hours of coursework related to an area of professional interest, e.g., early childhood education, reading, or an academic discipline.

### Electives

The remaining courses needed to complete the degree program may be selected, with an adviser's approval, from those listed in this catalog. Acceptable courses are listed under the following areas: elementary and early childhood education, educational foundations, secondary education, reading, or those offered by other academic departments.

- All students seeking an M.Ed. in Elementary Education are required to demonstrate competency in writing skills by completing an in-depth research paper. This may take the form of a departmental paper or a thesis. The research paper must follow the style format of either the *Publication Manual of the American Psychological Association* or *Form and Style* by Campbell.

Departmental papers must be read and approved by the student's adviser and one other member of the graduate faculty. A thesis must meet the requirements of the School of Graduate Studies.

## MASTER OF EDUCATION Reading

**Program Coordinator:** Edward J. Poostay, Ph.D.  
(717) 389-4092

### Program Description

This program provides an opportunity for professionals to earn an M.Ed. in Reading and/or certification as a K-12 reading specialist in the Commonwealth of Pennsylvania. The program emphasizes attaining a knowledge base in current research, diagnosing and remediating reading difficulties, and improving the instructional practices of classroom teachers, reading specialists, and resource room teachers.

All graduate-level reading programs are coordinated through the Bloomsburg University Reading Clinic, which is part of the Department of Curriculum and Foundations within the School of Education in the College of Professional Studies. The clinic was established in 1957 and provides free diagnostic and tutorial services for children and adults. Graduate assistantships, which provide a tuition waiver and a stipend, and which

require working 10-20 hours per week in the reading clinic, are available on a competitive basis through the School of Graduate Studies.

## Faculty Research Interests

**Edward Poostay, Ph.D.**, professor.

Diagnosis, remediation, parent involvement

**Chris A. Cherrington, Ph.D.**, assistant professor.

Language arts and children's literature

## Special Requirements

### Admission...

Applicants must satisfy the general admission requirements for the School of Graduate Studies and the following requirements, which are specific to the reading specialist certification program and the M.Ed. in Reading program:

- A written recommendation from any two of the following references: undergraduate faculty, graduate faculty, direct-line supervisors, administrators, or other individuals who are familiar with the applicant's academic abilities. Recommendation forms are available at the Bloomsburg University Reading Clinic.
- An interview with the program coordinator to clarify program requirements, discuss goals, evaluate academic records, and outline a long-range program. The program coordinator's recommendations will be forwarded to the Assistant Vice President for Graduate Studies and Research.
- An informal writing sample, which will be handwritten during the admission interview.
- A minimum undergraduate Q.P.A. of 3.0.
- An applicant who does not have an undergraduate Q.P.A. of 3.0 may be admitted as a *provisional student* but will be required to take the Graduate Record Examination (must achieve a combined Verbal/Quantitative/Analytical score of 1,200) or the Miller Analogies Test (must achieve a minimum score of 45). If required, the tests must be completed before the student completes 9 semester hours at Bloomsburg University.

### Retention...

- Students must maintain a Q.P.A. of 3.0.
- Graduate-level reading courses with a grade of C or lower must be repeated to achieve a grade of B or higher.
- After completing 9 semester hours, students must adhere to the university's application procedures for *candidacy*.

### Transfer Credits...

- A maximum of 9 semester hours of graduate-level coursework may be transferred from an accredited institution.
- Transfer courses must carry a grade of B or higher and must be completed no earlier than three years prior to admission.
- Transfer credits may be requested or submitted at any time during the student's six-year program, but require prior



approval from the student's adviser and the Assistant Vice President for Graduate Studies and Research.

## Graduation...

The reading specialist certification program consists of 24 semester hours; 12 additional semester hours are required for the M.Ed. in Reading. The first eight courses in the following list are required for the reading specialist certification program. Courses 60.501 and 79.591 are required in the M.Ed. program. In addition, a student may select two electives from a predetermined list of courses with prior approval from the program coordinator and the Assistant Vice President for Graduate Studies and Research. The parentheses indicate the semesters the courses are offered:

### Required Courses

- 63.540 Introduction to the Teaching of Reading  
(fall, spring, summer)
- 63.541 Diagnosis and Prescription in Reading  
(fall, spring, summer)
- 63.542 Psychological Aspects of Literacy  
(fall, spring)
- 63.543 Clinical Practicum I (fall, spring)
- 63.544 Clinical Practicum II (summer)
- 63.545 Organization and Administration of  
Reading Programs (summer)
- 63.546 Reading in the Content Areas  
(fall, spring)
- 63.548 Reading Instruction for the At-Risk  
Learner (fall, spring)
- 60.501 Major Philosophies of Education  
(fall, summer)
- 79.591 Research in Education (fall, summer)

- Students seeking an M.Ed. in Reading must complete 36 semester hours with a Q.P.A. of 3.0.

- Students seeking an M.Ed. in Reading automatically take a comprehensive examination as part of certification requirements.

- All requirements must be completed within six years from the date of admission into the program. Students must reenroll for all courses which exceed the six-year program completion deadline outlined in the Graduate Catalog.

### Level I Certification Requirements

Students seeking certification as a reading specialist must complete 24 semester hours with a Q.P.A. of 3.0 and take a comprehensive essay examination prepared by the faculty in the graduate reading program. Specific guidelines for the comprehensive examination can be obtained from the program coordinator.

# MASTER OF SCIENCE

## Audiology

**Program Coordinator:** G. Donald Miller, Ph.D.  
(717) 389-4436

### Program Description

The purpose of the training program in audiology is to prepare graduates to provide diagnostic and habilitative audiological services in a variety of job settings. The program is accredited by the Educational Standards Board of the American Speech-Language-Hearing Association (ASHLA) and is designed to afford its graduates the academic and clinical practicum requirements necessary to receive the Certificate of Clinical Competence in Audiology (CCC-A) issued by ASHLA as well as to meet the requirements for an audiology license as issued by the Commonwealth of Pennsylvania. Graduates of the program obtain employment in hospitals and medical centers, clinics, physicians offices, schools, industries, and in private practice settings. The students receive a broad based academic training and obtain practicum experience in a variety of practical settings including internship and externship sites. The student's academic experiences include evaluating and conducting research in the discipline.

Students may be accepted into the graduate audiology program with any undergraduate degree, but individuals without an acceptable undergraduate program in speech and hearing will, by advisement, be required to take prerequisite coursework and practicum as a part of their graduate audiology degree program.

### Faculty Research Interests

**Richard M. Angelo, Ed.D.**, associate professor, director of clinical services.

Basic and clinical electrophysiology; hearing aids

**G. Donald Miller, Ph.D.**, professor, curriculum coordinator.  
Clinical audiology including electrophysiological evaluation;  
industrial audiology and hearing conservation

**Vishaka W. Rawool, Ph.D.**, assistant professor.  
Electrophysiology, clinical audiology, aural rehabilitation

### Special Requirements

#### Admission...

- The applicant is required to submit a one-page, typed letter of intent stating professional background, experience, and rationale for wanting to be admitted to audiology.

- The applicant is required to submit three letters of recommendation with the names, addresses, positions, and telephone numbers of the references who have knowledge of the applicant's academic and clinical background.

- The applicant should arrange for an interview with the program coordinator.

- An applicant must have a baccalaureate degree from an accredited institution, with an overall grade point average of 2.8. Students who do not have an undergraduate major in the area of communication disorders will be required to satisfactorily complete certain academic and practicum deficiencies as prescribed by the faculty following individual transcript analysis.

- The Graduate Record Examination will be required of all applicants with a combined minimum score of 1,450 needed for admission.

Applicants who fail to satisfy the program's requirements may be admitted on a provisional basis. In such cases, the terms of the conditional admission will be specified for the individual applicant.

### Retention...

The student must maintain a Q.P.A. of 3.0 with a maximum of two Cs throughout the graduate program. A grade of C in any clinical experience will necessitate repeating the course to achieve a grade of B or higher.

### Candidacy...

Students must apply for admission to candidacy once they have completed 9 semester hours of coursework.

### Graduation...

- A minimum of 42 semester hours is required to complete this master's program.

#### Required Courses

##### Undergraduate Courses

- 72.200 Introduction to Audiology
- 72.300 Auditory Training and Speech Reading
- Graduate Courses
- 72.500 Measurement of Hearing Loss
- 72.502 Physiological Methods in Audiology
- 72.504 Hearing Aids
- 72.506 Internship:  
Clinical Practicum in Audiology
- 72.508 Internship:  
Clinical Practicum in Audiology
- 72.510 Research in Audiology
- 72.512 Special Problems in Audiology
- 72.514 Industrial and Public Health Audiology
- 72.516 Auditory Problems in Children
- 72.518 Theoretical and Clinical Masking
- 72.520 Educational Audiology
- 72.522 Aural Rehabilitation: Theory and Practicum
- 72.524 Internship:  
Clinical Methods in Audiology
- 72.525 Internship:  
Clinical Methods in Audiology
- 72.526 Internship:  
Clinical Practicum in Audiology

- 72.527 Internship:  
Clinical Practicum in Audiology
- 72.532 Electronics and Instrumentation  
in Audiology

#### Elective Courses

- 72.528 Internship:  
Clinical Practicum in Audiology
- 72.590 Independent Study and Research
- 72.591 Independent Study and Research
- 72.599 Master's Thesis
- 74.568 Communication for the Hearing Impaired  
(Sign Language)

Other elective courses available via advisement.

- A thesis or departmental paper is required.

- The M.S. in Audiology degree program has exit examination requirements. A comprehensive examination will be scheduled during the semester the student plans to graduate. Evaluation will be on a "pass-fail" basis. If a student "fails," the student may repeat the examination. The American Speech-Language-Hearing Association examination for clinical competence may be substituted for the comprehensive examination providing the student scores 650 or better.

## MASTER OF SCIENCE Biology

**Program Coordinator:** George P. Chamuris, Ph.D.  
(717) 389-4735

### Program Description

This program prepares students for either admission to a research-oriented doctoral program in the biological sciences or employment in a biological or health-oriented profession. The program also enhances the knowledge, perspective, and experience of teachers of biology in secondary schools. A broad array of subdisciplines is represented among the faculty, providing a solid program in general biology.

The university is a member of the Marine Science Consortium. Courses in marine science are offered during the summer at Marine Science Center located near Wallops Island, Va. Graduate students may use this facility to take graduate-level courses in marine biology or to pursue research projects at the Bloomsburg University Marine Biology Laboratory.

### Faculty Research Interests

**Joseph P. Ardizzi**, Ph.D., assistant professor.  
Fungal genetics, microbiology, and cell biology

**George P. Chamuris**, Ph.D., assistant professor.  
Ecology, population biology, speciation and systematics of wood- and bark-inhabiting fungi

**James E. Cole**, Ph.D., professor.  
Vertebrate ethology

**Judith P. Downing**, Ph.D., professor.  
Immunology, bacterial resistance to antimicrobial agents, and infectious diseases caused by bacteria

**Philip A. Farber**, Ph.D., professor.  
Cytogenetics

**George J. Gellos**, Ph.D., associate professor.  
Developmental plant morphology

**Michael Herbert**, Ph.D., professor.  
Microbiology, environmental microbiology of food and water

**Frederick C. Hill**, Ph.D., professor.  
Vertebrate zoology, malacology, and aquatic biology

**Thomas S. Klinger**, Ph.D., associate professor.  
Marine biology, physiological ecology, and biometry

**Mark S. Melnychuk**, Ph.D., associate professor.  
Nutrition and reproductive physiology

**Lynne C. Miller**, Ph.D., associate professor.  
Medical parasitology, parasite immunology and physiology, experimental pharmacology and toxicology

**Louis V. Mingrone**, Ph.D., professor.  
Phytochemical systematics and floristics

**James E. Parsons**, Ph.D., professor.  
Clinical microbiology and medical mycology

**Robert G. Sagar**, M.S., associate professor.  
Ecology, ornithology, and bird behavior

**Cynthia A. Surmacz**, Ph.D., associate professor.  
Cell physiology and exercise physiology

**Margaret L. Till**, Ph.D., assistant professor.  
Endocrinology, adrenocortical mechanisms, comparative animal physiology

Special Requirements

Admission...

A B.S. or B.A. in biology or its equivalent is required for admission to this master's program. Undergraduate deficiencies must be rectified, without credit earned toward the degree, prior to admission to candidacy. Scores from both the general and biology subject portions of the Graduate Record Examination are required for full admission.

Candidacy...

An oral examination is required for admission to candidacy. The exam assesses the student's knowledge of general biology.

Graduation...

A minimum of 30 semester hours of graduate-level courses is required. With the exception of the Master of Science Thesis (thesis option), there are no required courses. All courses are considered elective courses.

- 50.411 Radiation Biology
- 50.432 Microbial Genetics
- 50.441 Cytogenetics
- 50.455 Environmental Microbiology
- 50.462 Plant Anatomy
- 50.463 Biological Photographic Techniques
- 50.481-489 Advanced Special Topics
- 50.521 Systematic Botany
- 50.530 Evolution
- 50.531 Developmental Biology
- 50.532 Molecular Genetics
- 50.549 Entomology
- 50.550 Mycology
- 50.551 Conservation of Biological Resources
- 50.552 Limnology
- 50.557 Biology of the Lower Vertebrates
- 50.558 Fungal Ecology
- 50.559 Ornithology
- 50.561 Animal Behavior
- 50.570 Medical Parasitology
- 50.571 Endocrinology
- 50.572 Comparative Animal Physiology
- 50.573 Systemic Physiology
- 50.575 Cell Physiology
- 50.576 Neuromuscular Physiology
- 50.591 Directed Study in Biology
- 50.592 Master of Education Thesis
- 50.593 Master of Science Thesis

Marine science courses offered at Wallops Island, Va.

- 55.431 Ecology of Marine Plankton
- 55.500 Problems in Marine Science
- 55.540 Environmental Science Education
- 55.570 Research Cruise-Biology

**Thesis Option.** This option is recommended for students planning to continue their studies through additional graduate or professional training. A minimum of 18 semester hours must be taken from 500-level courses. The Master of Science Thesis (50.593) accounts for 6 of these semester hours. An oral defense of the thesis is required.

**Non-Thesis Option.** This option is tailored for students interested in non-research oriented careers. A minimum of 18 semester hours must be taken from 500-level courses. In addition, a departmental research paper based on the literature must be submitted and orally defended. Upon completion of coursework, graduate students must take a written comprehensive examination.



# MASTER OF SCIENCE

## Early Childhood Education

**Program Coordinator:** John R. Hranitz, Ed.D.  
(717) 389-4030

### Program Description

This program is intended to enhance the professional competence of the individual as a teacher of young children. It includes integrated learning experiences in the study of the young child from prenatal through age eight, curriculum, current practice, and areas of interest to the teacher of young children. Individuals not holding any type of certification can obtain the Instructional Level I Certificate in Early Childhood Education, N, K-3. The program also has an option that enables the teacher with an Instructional Level I Certificate in Elementary Education, K-6 to obtain N, K-3, Early Childhood Education Certification.

### Faculty Research Interests

**John R. Hranitz**, Ed.D., professor.  
Child development, administration, research, theory, and curriculum practices and experiences

**William S. O'Bruba**, Ed.D., professor.  
Child development, theory, reading, children's literature, and curricular practices and experiences

**Gilda Oran**, Ed.D., assistant professor.  
Curriculum practices and experiences

**Lorraine A. Shanoski**, Ed.D., assistant professor.  
Theory, research, and curricular practices and experiences

**Bonnie Williams**, Ed.D., assistant professor.  
Curricular practices and experiences

### Special Requirements

#### Admission...

The following admission requirements, which apply to both the Master of Science in Early Childhood Education program and to the master's program with an Early Childhood Education Certification, must be met in addition to the general admission requirements for the School of Graduate Studies. Undergraduate work need not be in a specific field of study.

- An interview and a review of academic credentials are required. Applicants who lack an undergraduate Q.P.A. of 2.5 will be admitted on a provisional basis. A 3.0 Q.P.A. is required of all persons seeking admission to candidacy.

- All applicants will take the Miller Analogies Test. A minimum score of 30 is required.

### Certification Requirements

- Three recommendations from any of the following persons: undergraduate or graduate faculty, direct-line supervisors, administrators, and other individuals who are familiar with the applicant's academic abilities and personal qualities. Recommendation forms are available from the program coordinator for early childhood education.

- Written completion of a 10-day field experience. Forms are available from the program coordinator.

- Written completion of a 14-day participation experience. Forms are available from the program coordinator.

- Passing and/or remediation of speech and hearing tests, and vision tests. Forms are available from the program coordinator.

- Passing the National Teacher Examination core battery and the specialty area of early childhood education.

### Retention...

- Students must maintain a Q.P.A. of 3.0 throughout their program. Courses in which a grade of C or lower are obtained must be repeated with a grade of B or higher. Students not maintaining a Q.P.A. of 3.0 after candidacy will be removed from the candidacy list.

- Students must apply for candidacy.

- State Police checks required by the Department of Health and Welfare and the Bureau of Certification must be completed prior to practice teaching in private and public schools, Head Start programs, and day care centers in Pennsylvania.

- All students will take and pass a screening examination (a candidacy exam) which is administered when they have completed 9 to 12 semester hours of graduate work. The examination consists of written and oral requirements.

### Graduation...

The Master of Science in Early Childhood program consists of 30 semester hours; 12 additional semester hours in course work and practicum are required for the Level I Certification, N, K-3. Students must complete 6 semester hours in foundation courses, 18 to 30 semester hours in early childhood education core courses, and 6 semester hours in related studies courses.

#### Required Courses

62.410	Workshop in Preschool Education (6 semester hours)
60.512	Media and Software
62.522	Curriculum Trends in Early Childhood Education
62.523	Practices in Teaching the Young Child
62.590	Current Research and Development in Early Childhood Education
62.591	Learning and Development of the Young Child

- 62.592 Identification and Prescription of the Needs of Young Children
- 62.593 Organization and Administration of Educational Programs for Young Children
- 62.594 Practicum in Early Childhood Education (6 semester hours)

• Students seeking a Master of Science in Early Childhood Education must complete 30 semester hours with a 3.0 Q.P.A. Students seeking a Master of Science in Early Childhood Education with N, K-3 certification must complete 42 semester hours with a Q.P.A. of 3.0.

• A departmental paper, thesis, comprehensive project, or the comprehensive examination is required for completion of the degree program. Specific guidelines are available from the program coordinator. All papers must be written following the American Psychological Association (APA) style guide. A five chapter format is preferred.

• All program requirements must be completed within six years after admission into the program. Students are required to complete their programs within four years after candidacy is granted. Extensions may be granted in certain situations. Students, who fail to enroll and complete a course within a two-year period, are placed in an inactive file. Inactive students must reapply for admission, retake the screening examination, and reapply for candidacy. Courses older than six years will not meet the degree requirements.

## MASTER OF SCIENCE Education of the Hearing Impaired

**Program Coordinator:** Samuel B. Slike, D.Ed.  
(717) 389-4436

### Program Description

The graduate program in education of the hearing impaired (deaf and hard of hearing) is offered through the Department of Communication Disorders and Special Education. Prospective classroom teachers or itinerant hearing therapists are provided a variety of courses to prepare them for working with hearing impaired individuals. Coursework furnishes conceptual as well as experiential background in the areas of academic therapy, speech-language therapy, communication, psycho-social development, curriculum and instruction. Depending on their undergraduate major, students are prepared to work with preschool, elementary, secondary, or multiple handicapped hearing impaired individuals.

In their practicum courses, students are provided the opportunity to work with hearing impaired individuals in one-to-one and group situations. Various sites throughout Pennsylvania are offered for practicum experience. These sites are chosen according to the needs of the student intern. This practicum provides a classroom as well as an itinerant experience with the hearing impaired.

The Education of the Hearing Impaired program does not advocate any particular method of working with hearing impaired students. Hearing impaired persons are viewed as individuals with varying needs. Prospective classroom teachers are afforded a background in all methods of instruction so as to prepare them to work with the hearing impaired in a variety of educational settings.

### Faculty Research Interests

**Judith M. Hirshfeld, M.A.**, assistant professor.  
Developing oral communication skills in hearing impaired children and counseling the hearing impaired and their families

**Gerald W. Powers, Ed.D.**, professor.  
Admission procedures and criteria for graduate training programs

**Samuel B. Slike, D.Ed.**, professor.  
Teaching sign language and speech reading through videodisc technology

### Special Requirements

#### Admission...

Applicants with bachelor's degrees in early childhood education, elementary education, secondary education, special education, and communication disorders, are considered to have appropriate educational backgrounds for entry into the program. Prerequisite coursework in the following areas must be completed either before or during the graduate program.

• Undergraduate area of concentration in education of the hearing impaired.

• All applicants to the graduate program in education of the hearing impaired must have completed an introductory course in statistics or its equivalent, an introductory course in sign language and an introductory course in communication disorders. (Students may take these as general education electives.)

#### Required Courses

- 72.200 Introduction to Audiology
- 72.450 Clinical Observation
- 74.154 American Sign Language I
- 74.201 History, Education, and Guidance of the Hearing Impaired
- 74.205 Introduction to Instructional Methods with the Hearing Impaired
- 74.251 Phonetics

Students who anticipate applying for admission to the graduate program in education of the hearing impaired are strongly urged to elect the following courses:



### Electives

- 74.155 American Sign Language II
- 74.254 The Deaf Culture
- 74.255 American Sign Language III
- 74.256 American Sign Language IV

• A bachelor's degree with a Q.P.A. of 2.8 in the education of the hearing impaired area of concentration and an overall Q.P.A. of 2.8 are required. If either Q.P.A. is below 2.8, the student will be admitted on a provisional basis and must earn a Q.P.A. of 3.0 or better upon completion of 9 to 12 semester hours in graduate-level courses. No Cs may be earned during the provisional period.

• Applicants must submit a one-page, handwritten letter, stating professional background, experience, and rationale for wanting to be admitted to this master's program.

• Three letters of reference from individuals who have knowledge of the applicant's academic and teaching background are required. For confirmation purposes, the letters must contain the name, address, position, and telephone number of the writer.

• Applicants must make arrangements with the program coordinator for an interview.

• The National Teacher Examination and/or the Graduate Record Examination will be required of all applicants.

There is one entry point for full-time enrollment in this graduate program — summer semester. The application deadline for summer enrollment is March 15. Application for admission as a part-time student is not restricted and may be made at any time.

There is no quota for students interested in entering the program on a part-time basis. Part-time students are required to meet with the program coordinator to design a curriculum sequence and time line.

### Retention...

Graduate students are required to earn a Q.P.A. of 3.0 with a maximum of two Cs for retention in this master's program. If a C is earned in a practicum course, the course must be repeated and a grade of B or better earned.

### Candidacy...

Requirements for this program are the same as those for the School of Graduate Studies.

### Graduation...

Following is an example of a full-time curriculum sequence:

<i>Summer Sessions</i>	<i>(total of 12 weeks)</i>
72.522	Aural Rehabilitation
74.564	Speech for the Hearing Impaired
74.566	Language for the Hearing Impaired I
74.568	Advanced American Sign Language

### Fall Semester

- 74.560 Intermediate Speech and Language Practicum
- 74.565 Problems and Trends in Hearing Impairment
- 74.567 Language for the Hearing Impaired II
- 74.569 Curricular Subjects for the Hearing Impaired

### Spring Semester

- 74.570 Practicum with the Hearing Impaired

### Summer Sessions

*(total of 6 weeks)*

- 74.490 Counseling Needs of Communicatively Disordered Individuals and Their Families
- 74.584 Research in Hearing Impairment

All graduate students must complete a departmental paper (thesis or nonthesis) and successfully pass a comprehensive examination administered during the semester the student plans to graduate.

Upon graduation, students are academically prepared to apply for licensure in Pennsylvania and to pursue state and national certification as a teacher of the hearing impaired. They are granted a provisional national certification by the Council on Education of the Deaf upon formal application.

## MASTER OF SCIENCE

### Exercise Science and Adult Fitness

**Program Coordinator:** Linda M. LeMura, Ph.D.  
(717) 389-4563

### Program Description

This program prepares students for either additional scholarly opportunities via doctoral study or employment in rehabilitation centers, corporate fitness, wellness programs, and senior citizen continuing care facilities. The program is interdisciplinary in nature; students complete courses and internships which encompass the full spectrum of health, including rehabilitation, physiological assessment, and training for optimal performance.

Quality of instruction in the classrooms and laboratories is characterized by faculty who are continuously engaged as active learners. The faculty bring an excitement and enthusiasm for scientific inquiry by directly involving their students in both scholarship and discovery. These activities are augmented by learning resources such as library support, both on campus and at nearby Geisinger Medical Center, computer support, and well-equipped human performance and physiology laboratories. With excellent facilities, highly qualified faculty, and practical field experiences that are integral to the program, the master's degree in Exercise Science and Adult Fitness provides strong preparation for successful careers in this burgeoning discipline.



## Faculty Research Interests

**Linda A. LeMura**, Ph.D., assistant professor.

Energy metabolism, exercise electrocardiography, lipid metabolism

**Jerry K. Medlock**, Ed.D., professor.

Cardiac rehabilitation, health education, coronary risk factors analysis

**William J. Sproule**, D.Ed., professor.

Electrolyte balance, body composition analysis, nutrition

**Leon Szmedra**, Ph.D., assistant professor.

Cardiovascular adaptations in heart disease, neuromuscular physiology

## Special Requirements

### Admission...

A bachelor's degree in either health and physical education, the biological or allied health sciences, or a related field is required. Undergraduate deficiencies must be eliminated, without credit earned toward the degree, prior to admission to candidacy. Additionally, applicants must attain a minimum score of 50 on the Miller Analogy Test, and have an undergraduate Q.P.A. of at least 2.5. After completing 9 semester hours of graduate work, the student must apply for admission to candidacy. This application must be submitted before the completion of 12 semester hours of graduate work.

### Candidacy...

Requirements for this program are the same as those for the School of Graduate Studies.

### Graduation...

The Master of Science in Exercise Science and Adult Fitness requires 36 semester hours of which 6-12 semester hours in practicum are required for graduation. Additionally, attendance at the American College of Sports Medicine (ACSM) Exercise Test Technologist Workshop is required prior to graduation.

Graduate students admitted to candidacy for the Master of Science degree are required to complete a thesis. The student must confer with the assigned graduate adviser to select a thesis adviser. The thesis adviser serves as chairperson of the thesis committee. A second faculty member is selected from either the Health, Physical Education, and Athletics or the Biological and Allied Health Sciences departments. The third faculty member may be selected from any discipline within the university as appropriate to the thesis topic. The thesis topic must be approved by the thesis adviser and the graduate program coordinator. The completed thesis will be presented to the thesis committee, peers, and the university community.

# MASTER OF SCIENCE Instructional Technology

**Program Coordinator:** Harold J. Bailey, Ph.D.  
(717) 389-4506

## Program Description

The master's degree program in instructional technology addresses the preparation of three types of professionals: those who wish to enter a career in the training and development sector of business, industry, nonprofit institutions, or government; those who currently work in business, industry, or health care settings as trainers and developers but seek a formalized degree structured for their needs and further development; and those who wish to become instructional technology resource specialists in private, public, or higher education.

The curriculum concentrates on the application of the computer and emerging technologies to education and training with an emphasis toward design, development, and production of computer-based interactive videodisc courseware. Graduate students have the opportunity to experience a variety of state-of-the-art interactive video configurations through an instructional systems approach with the general program theme related to obtaining a background typically associated with an interactive video specialist. The program curriculum includes study in the following areas:

### Curriculum and Instructional Design

- System Approach
- Curriculum and Instructional Models
- Psychology of Learning
- Screen Design
- Theories of Learning

### Instructional Computing

- Computing Literacy
- Programming/Authoring
- Computer-Assisted Instruction
- Computer-Based Interactive Video

### Video Production and Post-Production

- Equipment
- Aesthetics
- Scripting
- Editing

### Technology

- Past and Current Technologies
- Emerging Technologies
- Networking

### Human Resource Development

- Team Relationship
- Interpersonal Skills
- Organizational Psychology
- Project Management
- Organization Training

## Faculty Research Interests

**Harold J. Bailey**, Ph.D., professor.

Instructional design, computer-based instruction, interactive technologies, interactive video

**Timothy L. Phillips**, Ph.D., assistant professor.

Instructional design, computer-based instruction, interactive technologies, instructional media

**Nancy E. Thornton**, Ph.D., assistant professor.

Instructional design, computer-based instruction, educational psychology, cognition and learning

## Special Requirements

### Admission...

- A personal interview
- Three letters of recommendation
- A one- to two-page paper describing the applicant's interest in instructional technology
- Graduate Record Examination or Miller Analogies Test

### Retention and Candidacy...

Requirements of this program are the same as those for the School of Graduate Studies.

### Graduation...

Persons who hold a bachelor's degree in any discipline from an accredited college or university may become degree candidates and proceed to the master's degree by completing a minimum of 30 semester hours of coursework. In addition, either an internship or a master's thesis is required. All courses are 3 semester hours unless otherwise indicated.

#### Required Courses (15 semester hours)

- 57.550 Instructional Design (*fall, spring*)
- 57.551 Advanced Instructional Design (*spring, summer*)
- 57.570 Introduction to Interactive Technologies (*fall, summer*)
- 57.573 Authoring Systems I (*fall, spring*)
- 27.511 TV Production and Design (*summer*)

#### Communications

Select one course from the following:

##### Special Topics:

- 25.585 Communication Interviewing Techniques
- 25.586 Communication Training in the Organization
- 25.587 Conflict and Communication: Small Group Discussion
- 25.445 Organizational Communication (*spring*)
- 48.453 Organizational Psychology (*spring*)
- 93.566 Organizational Behavior (*fall*)
- 93.583 Human Resource Development (*fall*)

#### Elective Courses (9 semester hours minimum)

Select three courses from the following:

- 57.560 Interactive Graphics (*fall, spring*)
- 57.572 Multimedia Programming (*fall, summer*)
- 57.574 Authoring Systems II (*fall, summer*)
- 57.575 Computer Assisted Instruction (*fall, spring*)
- 57.577 Pascal for Instructional Applications (*interdisciplinary study*)
- 57.578 Design of Instructional Systems (*interdisciplinary study*)
- 48.576 Theories of Human Learning (*spring*)
- 60.512 Media and Software (*summer*)
- 09.580-589 Special Topics

#### Final Requirement

Select one from the following:

- 09.590 Graduate Internships (3 or 6 credits)
- 09.599 Master's Thesis (6 credits)

## MASTER OF SCIENCE Nursing

**Program Coordinator:** M. Christine Alichnie, R.N., Ph.D.  
(717) 389-4600

### Program Description

Bloomsburg University offers a Master of Science in Nursing (M.S.N.) with specialty areas in psychiatric/mental health, community health, and adult health and illness. The programs of study prepare graduates as clinical specialists in advanced practice of professional nursing and provide the foundation for education at the doctoral level. A minimum of 39 semester hours is required in each of these two specialty areas for graduation. The master's degree program is accredited by the National League for Nursing.

#### Psychiatric/Mental Health Nursing

This option is designed to prepare graduates for the multifaceted roles of clinical nurse specialists in the advanced practice of psychiatric/mental health nursing. Analytical thinking, creative problem-solving, and responsible decision making are employed with increased expertise and accountability as graduates work independently and interdependently with clients and health care providers to improve the quality of mental health care delivery. M.S.N. graduates are prepared to assume leadership roles using advanced knowledge and skills in their specialty area as well as relevant nursing research in the promotion and maintenance of mental health and the treatment of mental illness in a variety of primary, secondary, and tertiary settings. The ability to actively participate in social, political, and ethical action designed to impact health policy and improve the quality of psychiatric/mental health nursing practice are critical attributes of the graduates of this program.

Due to the low enrollment in the option, students are not currently being admitted. If you are interested in this option, please contact the program coordinator.



## Community Health Nursing

This option is designed to prepare graduates as clinical nurse specialists in community health nursing. The primary focus of the program is on a specialized experience in working with health-related issues and problems common to rural and urban populations and specific at-risk populations to maximize their optimal wellness and health care resources. Graduates assume leadership roles as clinical nurse specialists, utilizing the nursing process with increased expertise and accountability in promoting and improving community health care.

## Adult Health and Illness Nursing

This option is designed to prepare graduates to assume leadership positions as clinical nurse specialists in the area of adult health and illness. Students engage in analytical thinking, innovative problem-solving, and responsible decision-making in the promotion, maintenance, and restoration of the optimal health of holistic persons in various settings and clinical foci. Advanced knowledge, understanding, and skills for the role development of a clinical nurse specialist within an area of adult health and illness are integrated within the courses. As advanced practitioners, graduate students function independently and collaboratively with clients and the interdisciplinary health team to improve and provide quality health care for a specific adult population. Social, ethical, and political actions are emphasized in order to initiate and effect change regarding the development of health care policy and its effect on health care delivery.

## Purpose and Terminal Objectives

Graduates of this program:

- Acquire advanced knowledge of theories of nursing and related disciplines in improving the practice of professional nursing in selected specialty areas.
- Utilize advanced knowledge and skills in selected specialty areas of professional nursing practice in the promotion, maintenance, and restoration of the optimal health of clients in a variety of health care settings.
- Validate, utilize, and extend research to improve the quality of professional nursing practice.
- Assume leadership positions as clinical nurse specialists in the practice of professional nursing.
- Participate in social and political action designed to improve the quality of nursing practice, health policy, and health care delivery.
- Function independently and interdependently with clients and the interdisciplinary health team in improving the quality of health care delivery in selected areas of advanced nursing practice.
- Evaluate personal and professional goals that support a belief in and commitment to leadership in selected areas of advanced nursing practice.

- Accept responsibility for personal and professional growth through the mechanism of lifelong learning.

## Part-Time or Full-Time Study

Students may select either full-time or part-time study depending upon their individual needs. Classes are scheduled in late afternoon and evening in order to facilitate progression in either type of study. Professional Nurse Traineeship Grants from the U.S. Department of Health and Human Services are available for both types of study on a competitive basis. Graduate assistantships are also available to students in the program.

## Preceptors

In the clinical courses in each specialty area, students have the opportunity to work with a preceptor who is a master's prepared clinical nurse specialist in the area of the student's specialization. The student works with the faculty adviser to select the preceptors based upon the program and the individual student's goals.

## Clinical Placements

Students are placed in major medical centers in Pennsylvania as well as with the National Institutes of Health (NIH) and community agencies in a variety of settings where holistic health care is delivered, such as hospice care and other specialized health practices. The selection is made jointly by the faculty adviser and the individual student.

## Research Opportunities

Students have the opportunity to work collectively with faculty and preceptors in research endeavors. They also validate, utilize, and extend research in all coursework and through the thesis which is required for graduation.

## Faculty Research Interests

**M. Christine Alichne, R.N., Ph.D.,** professor.

Professional socialization of nursing students, relationship between interpersonal and personal values, cognitive and noncognitive predictors of success in nursing, and cardiopulmonary clinical nursing research topics

**Mary A. Gavaghan, R.N., Ed.D.,** associate professor.

Causal attributions, coping, and needs of cancer patients; practices of breast self-examination and psychosocial factors as possible determinants of breast cancer prebiopically; and information desired by patients undergoing lymphangiography

**Nancy A. Onuschak, R.N., D.Ed.,** professor.

Staff nurses perception of factors affecting quality of therapeutic nursing care, cost-benefit analysis of clinical education in B.S.N. students, and psychiatric and mental health nursing research topics

**Patricia A. Torsella, R.N., M.S.N.,** assistant professor.

Mentoring: analysis of the concept for nursing education, community health clinical nursing research topics, and nursing education topics



Dorette Welk, R.N., Ph.D., associate professor.

Attitudes in postmyocardial infarction patients regarding transfer setting, educator perception and use of pattern recognition principles in baccalaureate nursing programs, and general adult health and illness nursing research topics

## Special Requirements

### Admission...

In addition to meeting the general admission requirements for the School of Graduate Studies, applicants must:

- Document a bachelor's degree with a major in nursing from a program accredited by the National League for Nursing, an undergraduate Q.P.A. of 3.0, and successful completion of undergraduate courses in statistics, research, and health assessment (as either integrated content or as a separate course);
- Be licensed to practice nursing in the United States;
- Have received a minimal composite score of 1,200 on the Graduate Record Examination (GRE);
- Submit three letters of professional recommendation;
- Submit a narrative detailing personal and professional goals for graduate education;
- Have completed a minimum of one-year postbaccalaureate clinical practice in the applicant's chosen area of clinical specialty prior to admission for candidacy.

Following a preliminary review of admission materials, qualified students are invited for personal interviews with members of the faculty. Applicants who do not meet the identified admission requirements will be considered on an individual basis. Applicants may request a preliminary interview with the program coordinator for clarification. These applicants may be admitted on a provisional basis until such time as identified prerequisites are completed to ensure knowledge and skills equivalent to a sound baccalaureate nursing base.

### Retention...

In addition to meeting the general retention requirements for the School of Graduate Studies, students in the M.S.N. program who have been admitted to candidacy must maintain a minimal Q.P.A. of 3.0, receive a minimum grade of B in advanced clinical courses, and complete the program within six calendar years. Failure to meet these requirements will result in the student being transferred to non-degree status (Category 510).

### For Candidacy...

Requirements for candidacy are the same as those for the School of Graduate Studies. Requests for admission to candidacy are submitted to the option adviser and subsequently are reviewed and recommended by the Nursing Departmental Graduate Council for approval by the Assistant Vice President for Graduate Studies and Research.

## Graduation...

### Required Courses (15 semester hours)

- 82.501 Research
- 82.502 Conceptual Role Models
- 82.503 Role Theory and Development in Nursing Practice
- 82.590 Thesis (6 semester hours)

### Clinical Specialization Courses (12 semester hours)

- 82.510 Psychiatric/Mental Health Nursing I
- 82.511 Community Health Nursing I
- 82.512 Adult Health and Illness Nursing I
- 82.530 Psychiatric/Mental Health Nursing II
- 82.531 Community Health Nursing II
- 82.532 Adult Health and Illness Nursing II

### Elective Courses (12 semester hours)

Graduate-level courses to fulfill elective requirements will be chosen by the student and an adviser based on career needs, clinical option requirements, and role development of a clinical nurse specialist. Electives may be selected from graduate courses in psychology, sociology, political science, business, communication disorders, speech communication, education, and nursing. The following courses are considered nursing electives:

- 82.504 Physical Assessment
- 82.505 Advanced Pathophysiology
- 82.506 Epidemiology: Concepts and Principles for Contemporary Nursing Practice
- 82.513 Management and Organizational Behavior in Advanced Nursing Practice
- 82.533 Management and Organizational Behavior in Health Care Delivery System

## Projection of Part-Time Course Sequence

### First Year

Fall	82.502	3 semester hours
Spring	82.501	3 semester hours
Summer	82.503	3 semester hours

### Second Year

Fall	Elective	3 semester hours
Spring	Elective	3 semester hours
Summer	Elective	6 semester hours

### Third Year

Fall	82.510, 82.511 or 82.512	6 semester hours
Spring	82.530, 82.531 or 82.532	6 semester hours
Summer	82.590	6 semester hours

Projection of a full-time sequence of courses is possible over a two-year calendar.

## Thesis

Graduate students who have been admitted to candidacy for the M.S.N. program are required to complete a satisfactory thesis. Immediately after admission to candidacy, it is the responsibility of the student to confer with the program coordinator or departmental chairperson to choose a potential thesis adviser from the Nursing Department's approved list of faculty. The thesis adviser serves as chairperson of the thesis committee. A second member may be selected from full-time nursing faculty. One of the nursing members should be in the student's area of clinical interest. The third member of the committee must be a graduate faculty member of Bloomsburg University and may be selected from any discipline within the university. The thesis must address a clinical nursing topic. Students present their completed thesis to peers, faculty, and the university. Defense of their thesis is the culminating event in the student's program of study and the clinical nursing research topic.

## Clinical Policies

Prior to enrolling in advanced clinical courses, graduate students must be candidates for the degree. As set forth in the contractual agreements with agencies serving as clinical practicum sites, all graduate students must have the following documentation on file with the Department of Nursing prior to participating in the clinical component:

- verification of current cardiopulmonary resuscitation certification;
- verification of current professional liability insurance for a minimum of \$300,000;
- a comprehensive health examination;
- verification of current Pennsylvania R.N. licensure;
- current resumé.

## Clinical Sites and Preceptors

Lehigh Valley Hospital, Cedar Crest and I78 site and 17th and Chew site, Allentown, Pa.

Preceptors:

Karen Petersen, M.S.N., R.N.  
Cynthia Runner-Heidt, M.S.N., R.N.  
Sandra Smith, M.S.N., R.N.

Berwick Hospital Center Home Health Care Services, Berwick, Pa.

Preceptor:

Marilyn Gibbons, M.S.N., R.N.

Carlisle Hospital, Carlisle, Pa.

Preceptor:

Susan Walsh, M.S.N., R.N.

Columbia-Montour Home Health/Visiting Nurse Assoc.

Preceptor:

Jane Gittler, M.S.N., R.N.

Danville State Hospital, Danville, Pa.

Hahnemann University, Philadelphia, Pa.

Private practice associated with Lycoming OB and GYN Associates, Nurse-Midwifery Service, Williamsport, Pa.

Preceptor:

Rosalie F. Kaleda, M.S.N., R.N., C.N.P.

Maternal and Family Health Services, Inc., Wilkes-Barre, Pa.

Preceptor:

Cheryl Fuller, M.S.N., R.N., C.N.P.

Meadows Psychiatric Center, Centre Hall, Pa.

The Milton S. Hershey Medical Center of The Pennsylvania State University, Hershey, Pa.

Preceptors:

Mary Kathryn Reeves-Hoche, M.A., M.S., R.N.  
Wendy Wilkinson, M.S.N., R.N.

National Institutes of Health, Department of Health and Human Services, Bethesda, Md.

Preceptor:

Kathy Ayers, M.S.N., R.N.

Polyclinic Medical Center, Harrisburg, Pa.

Preceptors:

Trish Bennett, M.S.N., R.N.  
Rita Brinkman, M.S.N., R.N.  
Sandra Christensen, M.S.N., R.N.  
Joanne Ferrari, M.S.N., R.N.  
Linda Haldeman, M.S.N., R.N.  
Susan Hamilton, M.S.N., R.N.  
Ann Meyers, M.S.N., R.N.  
Terri Williams, M.S.N., R.N.

Presbyterian Medical Center, Philadelphia, Pa.

Preceptors:

Barbara Gleeson, M.S.N., R.N.  
Sandra Hicks, M.S.N., R.N.  
Mary Ellen Kern, M.S.N., R.N.

SUN Home Health, Inc.,

Preceptor:

Christine Madonia, M.S.N., R.N.

Veterans Administration Medical Center, Wilkes-Barre, Pa.

Preceptor:

Louise Guszick, M.S., R.N., C.R.N.P.



# MASTER OF SCIENCE

## Special Education

**Program Coordinator:** Carroll J. Redfern, Ed.D.  
(717) 389-4119

### Program Description

This program provides an opportunity for individuals to receive a Master of Science in Special Education. The program is intended to improve the competence of the student's work with exceptional individuals, to develop potential for leadership, and to prepare students for further graduate study in the field of special education. The applicant may choose an area of study in mental retardation, learning disabilities, behavior disorders, or gifted/talented.

An area of specialization in exceptional persons is also offered. The program is designed for professionals who are not in special education, but who wish to expand their knowledge and develop new skills for working with the exceptional person.

### Faculty Research Interests

**Ann Marie Cook, Ed.D.**, assistant professor.  
Exceptionalities, vocational education, transition

**Mary B. Hill, Ph.D.**, professor.  
Special education research and technology

**Kenneth P. Hunt, Ph.D.**, professor.  
Behavior disorders

**Sheila D. Jones, Ed.D.**, assistant professor.  
Early childhood

**Ann L. Lee, Ed.D.**, assistant professor.  
Mainstreaming, early childhood, mildly handicapped

**Carroll J. Redfern, Ed.D.**, professor.  
Exceptionalities, mental retardation, supervision

**Joseph M. Youshock, Ed.D.**, associate professor.  
Exceptionalities, vocational education, transition

### Special Requirements

#### Admission...

Applicants seeking admission to the master's degree program in special education must satisfy the general admission requirements for the School of Graduate Studies. The following additional criteria are also required:

- A one-page, handwritten letter of intent stating professional background, experience, and rationale for wanting to be admitted to a specific department;

- The names, addresses, positions, and telephone numbers of three individuals who have knowledge of the applicant's academic and/or teaching background and will provide a professional reference;

- An interview with the program coordinator;

- Graduate Record Examination; and

- A Q.P.A. of 2.8 with a Q.P.A. of 3.0 in the major or in the last 60 undergraduate semester hours. If scores are below either of the above, the student will be admitted as provisional, which must be eliminated after completion of 9 to 12 semester hours in which a Q.P.A. of 3.0 or better is earned. No Cs may be earned during a probationary period.

#### Retention...

A Q.P.A. of 3.0 is required for retention in the program. A maximum of two Cs is permissible. If a C is earned in a practicum course, it must be repeated with a grade of B or better within a time frame determined by the area of concentration.

#### Graduation...

Students seeking the M.S. in Special Education must complete a minimum of 30 semester hours with a cumulative Q.P.A. of 3.0. Students may opt to complete a thesis or a departmental paper, or take 6 additional semester hours — yielding a total of 36 semester hours — in place of the thesis or departmental paper.

A comprehensive examination will be held during the semester the student intends to graduate. Evaluation will be on a pass/fail basis. If a graduate student fails this examination, it may be repeated.

#### Behavior Disorders

##### Required Courses

79.591	Research in Education
or 70.565	Reading and Interpreting Research in Special Education
70.570	Foundations of Behavior Disorders
70.571	Interventions with Behavior Disordered Individuals
70.572	Seminar on Behavior Disorders





70.599 Thesis (optional)

### Elective Courses

Students must select 9 semester hours from special education courses and 9 to 15 semester hours from general elective courses.

### Gifted/Talented

#### Required Courses

- 79.591 Research in Education  
or 70.565 Reading and Interpreting Research in Special Education  
70.517 Education of the Gifted Child  
70.518 Identification and Evaluation in Gifted/Talented Education  
70.519 Curriculum and Program Development in Gifted/Talented Education  
70.552 Special Project  
70.592 Practicum in Gifted/Talented Education  
62.534 Creativity for Teachers

Elective Courses (9 to 15 semester hours)

### Learning Disabilities

#### Required Courses (21 semester hours)

- 79.591 Research in Education  
or 70.565 Reading and Interpreting Research in Special Education  
70.505 Seminar in Learning Disabilities  
70.532 Communication Disorders of Exceptional Individuals  
70.544 Diagnostic and Remedial Techniques  
70.554 Disorders of Written Communication  
70.560 Neurologically Impaired Individuals  
70.590 Diagnostic and Remedial Practicum Learning Disabilities  
or An appropriate reading course  
70.599 Thesis (optional)

Elective Courses (9 to 15 semester hours)

### Mental Retardation

#### Required Courses (18 semester hours)

- 79.591 Research in Education  
or 70.565 Reading and Interpreting Research in Special Education  
70.502 Mental Retardation  
70.520 Curriculum and Materials for the Mentally Retarded/Physically Handicapped  
70.526 Vocational Work Study Programs  
70.544 Diagnostic and Remedial Techniques  
70.591 Practicum in Mental Retardation/Physical Handicapped  
70.599 Thesis (optional)

Elective Courses (9 to 15 semester hours)

### Exceptional Persons (21 semester hours)

- 70.516 Psychology of Exceptional Individuals  
70.591 Research in Education

or 70.565 Reading and Interpreting Research in Special Education

A minimum of 15 semester hours from the following:

- 70.455 Learning Disabilities  
70.490 Special Workshop  
70.501 Administration and Supervision in Education of Exceptional Individuals  
70.502 Mental Retardation  
70.517 Education of the Gifted Individual  
70.522 Assessment and Remediation of Mathematics for Special Needs Students  
70.526 Vocational Work Study Programs  
70.532 Communication Disorders of Exceptional Individuals  
70.544 Diagnostic and Remedial Techniques  
70.552 Special Projects  
70.559 Seminar in Education of Exceptional Individuals  
70.560 Neurologically Impaired Individuals  
70.562 Problems of Individuals with Impaired Motor Development  
70.570 Foundations of Behavior Disorders  
72.530 Fundamentals of Graduate Audiology  
72.572 Augmentative Communication for Nonspeaking Individuals  
74.490 Counseling Needs of Communication Disordered Individuals and Families  
74.501 Introduction to Sign Language

Elective Courses (9 to 15 semester hours)

### Special Education Supervisory Certificate Program Management and Administration

- 70.501 Administration and Supervision of Education for Exceptional Individuals

### School Law and Finance

- 60.576 School Law and Finance

### Group Dynamics

- 60.514 Home, School, Community Relations  
or 60.578 Group Processes in Supervision

### Research Techniques

- 60.577 Educational Research for Supervision  
or 70.565 Reading and Interpreting Research in Special Education  
or 79.591 Research in Education

### Curriculum Development

- 60.584 Curriculum and Instructional Theory, Design and Development  
or 60.585 Curriculum and Instructional Evaluation

### Practicum - Field Experience

- 70.595 Internship

# MASTER OF SCIENCE

## Speech Pathology

**Program Coordinator:** G. Donald Miller, Ph.D.  
(717) 389-4436

### Program Description

The graduate program in speech pathology prepares students for clinical practice with a variety of communication disorders and in a variety of clinical settings. The program is heavily oriented in clinical experiences in our in-house clinic culminating with a full semester of an externship in a clinic, hospital, or school setting.

**Dianne H. Angelo, Ph.D.**, associate professor.  
Clinic, clinical methods, augmentative communication

**Ronald R. Champoux, Ph.D.**, professor.  
Neurogenic disorders of speech and language, orofacial disorders of speech, clinic

**Robert J. Kruse, Ph.D.**, professor.  
Voice, stuttering

**Robert J. Lowe, Ph.D.**, assistant professor.  
Phonology, phonetics, speech science, clinic

**Julia M. Weitz, M.S.**, assistant professor.  
Normal language, language disorders in children

### Special Requirements

#### Admission...

In addition to meeting the general admission requirements for the School of Graduate Studies, applicants for the master's degree program in speech pathology must meet the following specifications:

- Applicants are required to submit a one-page, typed letter detailing their professional background, experience, and rationale for wanting to be admitted to the program in speech pathology.

- Applicants are required to submit three letters of recommendation from references who have knowledge of their academic and clinical background. This information must include the name, address, position, and telephone number of each reference.

- Applicants must have a bachelor's degree from an accredited institution with a major in communication disorders and a Q.P.A. of 2.8. Applicants whose major is in an area other than communication disorders will be required to satisfactorily complete certain academic and practicum deficiencies. These will be prescribed by faculty following analysis of the individual's transcript.

- A minimum combined score of 1,450 on the Graduate Record Examination is required of all applicants.

#### Retention...

Graduate students must maintain a Q.P.A. of 3.0 with a maximum of two Cs throughout the graduate program. If a grade of C is earned in a clinic course, the course must be repeated. To progress in graduate school, students must make application for admission to candidacy after they have completed 9 semester hours of coursework.

#### Graduation...

The graduate program in speech pathology consists of a minimum of 48 semester hours with most courses being required. A comprehensive examination is scheduled during the semester the student plans to graduate. Evaluation is on a pass/fail basis. The student's performance will determine when the student may retake the examination. The American Speech-Language-Hearing Association examination for clinical competence may be substituted for the comprehensive examination providing the graduate student receives a minimal score of 650. The clinic is necessary and inseparable from the existing course sequence. It becomes an important step in the development of a competent clinician, linking the classroom and text-book with clinical experience, certification, and employment in the field.

#### Required Courses

72.550	Adult Aphasia
72.552	Preschool Language Disorders
72.554	Stuttering
72.556	Phonology
72.558	Clinical Practicum
72.560	Voice Disorders
72.562	Language Disorders of School Children
72.564	Orofacial Disorders of Speech
72.566	Clinical Practicum
72.530	Fundamentals of Audiology
72.576	Clinical Practicum
72.578	Neuromuscular Disorders of Speech
72.580	Communication Disorders of the Traumatically Injured
72.582	Research in Speech Pathology
72.584- .586	Field Experience

#### Elective Courses

72.568	Speech Habilitation in Schools
72.570	Adult II - Language Disorders
72.572	Augmentative Communication
72.574	Seminar in Communication Disorders
72.590	Independent Study and Research
72.591	Independent Study and Research
72.599	Master's Research

# SUPERVISORY CERTIFICATE PROGRAMS

Program Coordinator: John R. Hranitz, Ed.D.  
(717) 389-4030

## Specialization for Supervisor of Curriculum and Instruction (N-12) Certificate Program

The Supervisor of Curriculum and Instruction Certificate Program is designed for individuals seeking certification with district-wide responsibilities and includes designing, coordinating, improving, evaluating, and extending instruction from N to 12.

### Prerequisites for Admission

- Candidates must provide proof of a Pennsylvania teaching certificate.
- Candidates must provide evidence of at least five years of satisfactory teaching experience. (Experience on an emergency certificate or an interim certificate is not acceptable.)

### Program Requirements

Candidates must complete a minimum of 36 semester hours at the graduate level from seven areas of competency.

- Curriculum and instruction—theory, design, and development
- Curriculum and early childhood, elementary, middle, and secondary education
- Research
- Supervision, management, and administration
- Group dynamics
- School law and finance
- Practicum—field experience

## Specialization for Subject Area Supervisory (K-12) Certificate Program

This program is designed for the person with primary responsibility supervising and directing the activities of professional and non-professional employees in given fields.

### Areas of Specialization

Curriculum and Instruction	36 semester hours
Early Childhood Education	30 semester hours
Elementary Education	30 semester hours
Reading	30 semester hours
School Health Service	30 semester hours
Secondary Education	30 semester hours

Communication	
Foreign Languages	
Mathematics	
Science	
Social Studies	
Special Education	30 semester hours

### Prerequisites for Admission

- Concentration in the area for which certification is sought.
- At least five years of satisfactory teaching experience in the field for which certification is sought. (Valid certificate in the field)

### Program Requirements

A minimum of 30 semester hours of graduate-level courses from the following areas:

- Management and administration
- Principles and practices in school supervision
- School law and finance
- Group dynamics
- Research techniques
- Curriculum development
- Practicum—field experience

## COOPERATIVE DOCTORAL PROGRAM

Bloomsburg offers a Doctorate of Education in cooperation with Indiana University of Pennsylvania (IUP). This is a cooperative doctoral program in elementary education that combines the resources of both institutions.

The program includes areas of concentration in:

- curriculum and supervision;
- administration;
- reading;
- early childhood education;
- educational psychology; and
- special education.

Students take courses at both Bloomsburg and IUP, and the doctoral committee guiding the dissertation consists of faculty from both institutions.

If you are interested in this doctoral degree program, you should contact William O'Bruba or John Hranitz at Bloomsburg University, Bloomsburg, PA 17815.

## INTERDISCIPLINARY STUDIES

Interdisciplinary courses are planned by more than one department or program. The courses are sometimes taught by teams of faculty members. Students should consult with their advisers to determine the appropriateness of these courses for their particular degree programs.



## HAAS CENTER

Code	Course Codes	Field of Study
91.	Accounting	
46.	Anthropology	
30.	Art	
31.	Art History	
32.	Art Studio	
72.	Audiology/Speech Pathology	
50.	Biology	
90.	Business Education	
23.	Communication	
25.	Communication Studies	
74.	Studies in Hearing Loss	
40.	Economics	
60.	Educational Foundations	
62.	Elementary and Early Childhood Education	
96.	Finance	
05.	Health and Physical Education	
80.	Health Sciences	
42.	History	
92.	Information Processing	
57.	Instructional Technology	
09.	Interdisciplinary Courses	
93.	Management	
55.	Marine Science	
97.	Marketing	
27.	Mass Communications	
53.	Mathematics and Computer Science	
82.	Nursing	
94.	Office Systems	
54.	Physics	
44.	Political Science	
79.	Professional Studies	
48.	Psychology	
63.	Reading	
65.	Secondary Education	
45.	Sociology	
70.	Special Education	



**ACCOUNTING**  
**(Code 91)**

**91.501 FINANCIAL ACCOUNTING**  
**3 semester hours**

Emphasis on asset valuation, income determination, and financial accounting principles, with selected topics from the funds statement and analysis and interpretation of financial statements.

**91.502 ADVANCED FINANCIAL ACCOUNTING**  
**3 semester hours**

Advanced problems in consolidated statements, stockbroker's equity, partnerships, fiduciary accounting, and selected topics dealing with government units and nonprofit service organizations. Selected reference to professional literature and uniform CPA examination problems.

Prerequisite: 91.501

**91.503 GOVERNMENT AND FUND ACCOUNTING**  
**3 semester hours**

Accounting principles and practices of governments and nonprofit institutions. Comparisons between accounting principles and practices which apply to governments and nonprofit institutions and those which are generally accepted in business.

**91.524 MANAGERIAL ACCOUNTING**  
**3 semester hours**

Introduction to the literature of accounting in management decision making. Theory, problem solving, case studies.

**ANTHROPOLOGY**  
**(Code 46)**

**46.440 LANGUAGE AND CULTURE**  
**3 semester hours**

A study of the place of oral or non-oral language in human evolution and contemporary cultures. Topics discussed include dialectal variation, discourse analysis, multilingualism, language, and cognition and the role of language in education.

**46.450 PEOPLES AND CULTURES OF SOUTH AMERICA**  
**3 semester hours**

A survey introduction to the aboriginal, non-literate cultures of South America including the ecological background, archaeology, and cultural patterns.

**46.470 HISTORY OF ANTHROPOLOGICAL THOUGHT AND THEORY**  
**3 semester hours**

Intensive survey of the leading methods and theories of anthropological and ethnological interpretation with special emphasis on the concept of culture and its practical application to modern problems.

**ART**  
**(Code 30)**

**30.590 CURRENT THEORIES OF ART AND ART EDUCATION**  
**3 semester hours**

Focuses on current theories of art and art education practiced in American schools with an emphasis on eventual application. A research paper or research project is required.

**30.591 ADVANCED VISUAL ARTS FOR EXCEPTIONAL CHILDREN**  
**3 semester hours**

Stresses importance of art activity as a means of enriching and stimulating special children's awareness of themselves and their world. Emphasis is placed on those positive aspects for creative activity which the handicapped child possesses.

**30.595 MASTER'S THESIS**  
**3-6 semester hours**

**ART HISTORY**  
**(Code 31)**

**31.560 READINGS AND RESEARCH IN CONTEMPORARY ART HISTORY**  
**3 semester hours**

A detailed study of contemporary movements in art from the late 19th century to the present with readings and research for advanced students.

**31.565 READINGS AND RESEARCH IN AMERICAN ART HISTORY**  
**3 semester hours**

Advanced study of the history of visual art in America.

**31.570 READINGS AND RESEARCH IN EARLY EUROPEAN ART HISTORY**  
**3 semester hours**

The research focus for this course is on specific topics relating to the periods from Pre-Historic to Gothic.

**31.571 READINGS AND RESEARCH IN LATER EUROPEAN ART HISTORY**  
**3 semester hours**

Examines period from the early Renaissance through French Impressionism.

**31.575 READINGS AND RESEARCH IN ORIENTAL ART HISTORY**  
**3 semester hours**

An advanced survey of Oriental Art in the broadest sense of the work, the art, and architecture of the ancient Near East, Japan, China, and India. An introduction to both monuments and cultural ideas. Exposes advanced students to basic problems in chronology, style, and research methodology.

**31.580 READINGS AND RESEARCH IN ARCHITECTURAL ART HISTORY**  
**3 semester hours**

An advanced survey of the evolution of architecture in the Western World from the Pharaonic Egyptian period through the contemporary 20th century. Typical and outstanding examples of each period are discussed and researched. Imperative to an understanding of the physical structures studied is an analysis of the type of society and the rationale for the creation of such an architecture.

**31.585 ART AND CULTURE OF FRANCE**  
**3 semester hours**

A study-tour of France with specific attention to French Art seen in relation to its social and cultural environment. Visits will be made to places of artistic and cultural interest in and around Paris and specific areas of France related to the particular course of study. Course also offered through the School of Extended Programs for advanced students and members of the community.



### 31.592 READINGS AND RESEARCH IN ADVANCED VISUAL AESTHETICS

3 semester hours

Advanced study of images and viable aesthetic positions in the plastic arts emphasizing artistic and perceptual awareness and concern with environmental relationships.

### 31.595 DIRECTED STUDY IN ART HISTORY

3 or 6 semester hours

Advanced study of a topic in the area of art history. An intensive review of the scholarly literature in the field. A paper is required under the direction of a faculty adviser.

## ART STUDIO (Code 32)

### 32.500 ADVANCED CERAMICS I

3 semester hours

Requires students to define in writing their level of knowledge and competency, then prepare a plan of study that will allow for a direction of work. Students are responsible for making and firing their own work.

### 32.501 ADVANCED CERAMICS II

3 semester hours

Students intensify their study of selecting a specialized problem relating to the experiences gained in Advanced Ceramics I.

### 32.502 ADVANCED CERAMICS III

3 semester hours

Students continue to pursue an advanced and refined level of study in the discipline of creating an art object. A specialized problem relating to the experiences gained in the first two levels facilitates continuity in learning.

### 32.503 ADVANCED CERAMICS IV

3 semester hours

Focuses on professional and philosophical attitude reflected in students' work. Students are required to have an exhibition of their work.

### 32.510 ADVANCED DRAWING I

3 semester hours

Requires exploration of advanced drawing techniques and involvement of personal expression and imagery.

### 32.511 ADVANCED DRAWING II

3 semester hours

Emphasis on the development of individual themes and projects.

### 32.512 ADVANCED DRAWING III

3 semester hours

Focus on personal expression and imagery for potential thesis statement—self-direction and innovation.

### 32.513 ADVANCED DRAWING IV

3 semester hours

Concentration and production of drawings for a unified thesis statement.

### 32.520 ADVANCED CRAFTS I

3 semester hours

Advanced levels of experimentation with contemporary idioms in crafts design. Emphasis on highly professional concepts of form and methods and on investigation and refinement of techniques as a means

of realizing significant visual statements in crafts. Individualized instruction and independent planning for each student on all four levels.

### 32.521 ADVANCED CRAFTS II

3 semester hours

Individual concentration on specific media and related techniques. Intense involvement with refined design schemes, systems, and variations that are oriented toward an increasingly more defined singular direction in crafts.

### 32.522 ADVANCED CRAFTS III

3 semester hours

Highly independent and mature involvement with advanced concepts, methods, and processes in a specific crafts direction. Students should begin to develop a thesis presentation which should emerge from studio experiences, independent research, and from a wide, highly selective exposure to craft objects in museums, galleries, and private studios.

### 32.523 ADVANCED CRAFTS IV

3 semester hours

Continued involvement with advanced concepts in crafts. Concentration on completing final works for a one-man or a one-woman show. A definitive position paper reflecting a personal philosophy in crafts should be developed.

### 32.530 ADVANCED GRAPHICS I

3 semester hours

Advanced level exploration of traditional and/or experimental printmaking methods. Emphasis on personalized imagery and technical proficiency.

### 32.531 ADVANCED GRAPHICS II

3 semester hours

Exploration of advanced level printmaking including color and color registration procedures.

### 32.532 ADVANCED GRAPHICS III

3 semester hours

Focus on personalized forms for potential thesis statement. Students are expected to be innovative and proficient in technology of printmaking.

### 32.533 ADVANCED GRAPHICS IV

3 semester hours

Concentration on the selected forms for a unified thesis statement.

### 32.540 ADVANCED PAINTING I

3 semester hours

Search into purpose of painting with specific attention to traditional methods, i.e., glazing, egg tempera, and underpainting.

### 32.541 ADVANCED PAINTING II

3 semester hours

Exploration and different approaches of painting for individual expression. Emphasis on achieving in representational painting.

### 32.542 ADVANCED PAINTING III

3 semester hours

Continued development into maturity of individual style—with emphasis on mural painting designed into architectural space.



**32.543 ADVANCED PAINTING IV****3 semester hours**

Mature fulfillment of personal expression. Painting should reflect continuity of intent and style. A selection of work is prepared for exhibition and thesis.

**32.550 ADVANCED SCULPTURE I****3 semester hours**

Requires students to define in writing their level of knowledge and philosophical direction, then prepare a plan of study that allows for a direction of work. Students are responsible for the completion of show quality pieces.

**32.551 ADVANCED SCULPTURE II****3 semester hours**

Emphasis on student experimentation while still being concerned with the concept form. Focus on growth and development of more positive philosophical ideas.

**32.552 ADVANCED SCULPTURE III****3 semester hours**

Students' work should reflect a significant transition from experimentations to a more definite direction in technique and aesthetic opinion.

**32.553 ADVANCED SCULPTURE IV****3 semester hours**

Students produce highly professional pieces of art while maintaining an awareness of their responsibility to society. This responsibility is fulfilled by an exhibition of each student's work for their thesis.

**32.580 ADVANCED PHOTOGRAPHY I****3 semester hours**

Focuses on foundations of black and white photography for the advanced student. Emphasis on the technical controls of exposure and printing, research on historical and contemporary photographers and issues, and active participation in class critiques and lectures.

**32.581 ADVANCED PHOTOGRAPHY II****3 semester hours**

Students identify technical and conceptual problems and goals which they will pursue during the course. Written statement of intentions, self-evaluation of work, and a final portfolio required. Attendance at lectures and critiques is required.

**32.582 ADVANCED PHOTOGRAPHY III****3 semester hours**

Stresses proficiency in black and white exposure and printing. Students design a semester photographic project with a finished portfolio and exhibition as final goals. Continued class participation and development of technical skills expected.

**32.583 ADVANCED PHOTOGRAPHY IV****3 semester hours**

Students write a statement outlining their thesis work to be carried out during the course. A final thesis, exhibition, and portfolio are required.

**32.595 DIRECTED STUDY IN STUDIO ART****3 or 6 semester hours**

Continued development of a student's involvement in a studio area after satisfactory completion of four levels of advanced study in that area. Consent of the instructor and the department chairperson are required.

## AUDIOLOGY/SPEECH PATHOLOGY (Code 72)

**72.500 MEASUREMENT OF HEARING LOSS****3 semester hours**

Studies anatomy and physiology of the hearing mechanisms. Covers etiology of hearing losses, interpretation of audiometric evaluations, and available rehabilitative procedures. Lab experience in the administration of clinical audiometric evaluation provided.

Prerequisite: 72.200, 72.300.

**72.502 PHYSIOLOGICAL METHODS OF AUDIOLOGY: BRAINSTEM EVOKED RESPONSE AUDIOMETRY AND ELECTRONYSTAGMOGRAPHY****3 semester hours**

Study of the electrophysiologic techniques used to assess cochlear and retrocochlear function. Review of theories and clinical applications of vestibular tests, auditory brainstem evoked responses, and electrocochleography.

**72.504 HEARING AIDS AND AUDITORY TRAINING****3 semester hours**

Theoretical and clinical analyses of literature in relation to educational and other rehabilitative measures available to individuals with serious organic and nonorganic hearing problems. Study, interpretation, and evaluation of modern instruments and tests included.

**72.506 EXTERNSHIP: CLINICAL PRACTICUM IN AUDIOLOGY I****3 semester hours**

Hearing losses and deafness affecting the personal and socio-economic adjustment of individuals evaluated and treated through supervised study and experience. Externships may be arranged in approved private and public institutions.

**72.508 EXTERNSHIP: CLINICAL PRACTICUM IN AUDIOLOGY II****3 semester hours**

See course description for 72.506

**72.510 RESEARCH IN AUDIOLOGY****3 semester hours**

The application of clinical and non-clinical research literature to the solution of diagnostic and treatment problems encountered in the general practice of audiology.

**72.512 SEMINAR IN AUDIOLOGY: SPECIAL PROBLEMS****3 semester hours**

Analysis, interpretation, and study of selected problems in audiology and related disciplines that may include education, psychology, otology, rehabilitation, and other fields.

**72.514 SEMINAR IN AUDIOLOGY: INDUSTRIAL AND PUBLIC HEALTH AUDIOLOGY****3 semester hours**

Problems and programs of hearing conservation in public institutions and industries examined with special emphasis on legislation and medico-legal questions. Examines role and function of the public health and industrial audiologist.

**72.516 SEMINAR IN AUDIOLOGY:  
AUDITORY PROBLEMS IN CHILDREN**

**3 semester hours**

Congenital and acquired hearing impairment in children examined with special emphasis on problems of differential diagnosis. Educational and social implication of hearing impairment in children discussed in conjunction with appropriate habilitative procedures.

**72.518 SEMINAR IN AUDIOLOGY:  
THEORETICAL AND CLINICAL MASKING**

**3 semester hours**

Neurophysiological and acoustic basis of problems of masking in auditory measurement explored and training offered in clinical masking procedures.

**72.520 EDUCATIONAL AUDIOLOGY**

**3 semester hours**

Deals with the diagnostic and rehabilitative aspects of audiology in the educational setting. The effects of hearing loss on speech and language development, the use of amplification in the schools, and educational audiology alternative and models examined.

**72.522 AURAL REHABILITATION:  
THEORY AND PRACTICE**

**3 semester hours**

Habilitation/rehabilitation of the hearing impaired including auditory training, speech reading, hearing aids, assistive listening devices, communication strategies, and counseling. Emphasis on the sensory capabilities (auditory, visual, tactile, and auditory-visual training) of the hearing impaired with practicum lab.

**72.524, 72.525, 72.526, 72.527, 72.528  
INTERNSHIP IN AUDIOLOGY:  
CLINICAL PRACTICUM**

**3 semester hours**

Emphasis on the Speech, Hearing, and Language Clinic as an integral part of the teaching-training program of the Department of Communication Disorders. The clinic provides outpatient diagnostic and therapeutic services for persons of all ages with speech, hearing, and language problems, including students, other members of the university community, and residents of the Bloomsburg area; serves as an extension of the classroom where students can apply and study evaluational procedures, therapeutic methods, techniques and materials, and classification and etiology of speech and hearing disorders; gives students an opportunity to relate text and lecture information to actual clinical cases under the close supervision of certified staff. Students gain experience in all aspects of remediation – diagnosis, therapy, counseling, and report writing – with a wide variety of clients.

**72.530 FUNDAMENTALS OF GRADUATE  
AUDIOLOGY**

**3 semester hours**

Designed for graduate students who are not audiology majors such as, but not limited to, students of speech pathology, education of the hearing impaired, reading, nursing, or special education. Presents a synopsis of the primary concepts in diagnostic and rehabilitative audiology. Attempts to relate the possible implications of the audiological topics to each of the fields of study listed above.

**72.532 ELECTRONICS AND INSTRUMENTATION  
IN AUDIOLOGY**

**3 semester hours**

Emphasis on solving practical equipment problems and understanding the operation of equipment used in clinical practice and hearing services.

**72.550 ADULT APHASIA**

**3 semester hours**

Study of language disorders in brain injured adults. Areas of concentration include the history of aphasia, the neurological basis for aphasia, symptomatology of aphasia, associated problems, intelligence and aphasia, the evaluation of language and nonlanguage functions, and current rehabilitative procedures.

**72.552 PRESCHOOL LANGUAGE**

**3 semester hours**

A review of normal language acquisition with primary emphasis on the application of developmental information to the diagnosis and habilitation of language disorders in children.

**72.554 STUTTERING**

**3 semester hours**

The development, diagnosis, and treatment of stuttering disorders with equal emphasis on academic understanding and clinical management.

**72.556 PHONOLOGY**

**3 semester hours**

Examines language based disorders of articulation. Emphasis on identification, description, and remediation of phonological disorders. Generative and natural phonological processes are discussed.

**72.558 CLINIC I**

**3 semester hours**

Emphasis on the Speech, Hearing, and Language Clinic as an integral part of the teaching-training program of the Department of Communication Disorders. The clinic provides outpatient diagnostic and therapeutic services for persons of all ages with speech, hearing, and language problems, including students, other members of the university community, and residents of the Bloomsburg area; serves as an extension of the classroom where students can apply and study evaluational procedures, therapeutic methods, techniques and materials, and the classification and etiology of speech and hearing disorders; gives students opportunity to relate text and lecture information to actual clinical cases under the close supervision of certified staff. Students gain experience in all aspects of remediation – diagnosis, therapy, counseling, report writing – with a wide variety of clients.

**72.560 VOICE DISORDERS**

**3 semester hours**

The diagnosis and clinical management of functional and organic voice disorders.

**72.562 LANGUAGE DISORDERS OF SCHOOL  
CHILDREN**

**3 semester hours**

An exploration of disorders of later language acquisition and the interaction of language disorders with academic achievement, especially in the acquisition of literacy skills. Diagnostic assessments and treatment approaches are developed.



**72.564 OROFACIAL DISORDERS OF SPEECH****3 semester hours**

Concentrates on orofacial structural deficits and their effect on speech. Specific attention to clefts of the prepalate and palate and their sequelae on speech.

**72.566 CLINIC II****3 semester hours**

See course description for 72.558.

**72.568 SPEECH HABILITATION IN THE SCHOOLS****3 semester hours**

Examines the profession of speech and language pathology in a school setting as it interacts with the other school-related disciplines. Emphasis is placed on facilitating of communication among the disciplines.

**72.570 ADULT II - SECONDARY LANGUAGE DISORDERS****3 semester hours**

Study of secondary disorders of language in adults. Special emphasis on disorders of right hemisphere damage, dementia, and schizophrenia.

**72.572 AUGMENTATIVE COMMUNICATION****3 semester hours**

Explores the field of augmentative communication and nonspeaking persons. Topics include candidacy issues, assessment, vocabulary configuration, symbol selection, and communication interaction training for language board and electronic device users. Examines current research practices and studies in communication interaction patterns of nonspeaking individuals.

**72.574 SEMINAR IN COMMUNICATION DISORDERS****1-6 semester hours**

Selected theoretical and clinical areas of communication disorders and related disciplines. Selected areas may include clinical and research topics pertaining to student needs.

**72.576 CLINIC III****3 semester hours**

See course description for 72.558.

**72.578 NEUROMUSCULAR DISORDERS OF SPEECH****3 semester hours**

Etiology, diagnosis, and treatment of organic factors are subjects of intensive study. Emphasis is on articulatory abnormalities of speech processes caused by cerebral palsy and adult neurological impairments. Implications of disorders for developmental age levels are considered.

**72.580 COMMUNICATION DISORDERS OF THE TRAUMATICALLY HEAD INJURED****3 semester hours**

Study of the nature of traumatic head injuries, emphasizing assessment and treatment of resultant communication disorders.

**72.582 RESEARCH IN SPEECH AND LANGUAGE PATHOLOGY****3 semester hours**

Application of clinical and nonclinical research literature to the solution of treatment problems encountered in speech and language pathology.

**72.584 FIELD EXPERIENCE I****3 semester hours**

Considers special clinical problems of clients through advanced study and experience. Externships in approved institutions or schools. Problem areas and student practicums must be approved by a graduate adviser.

**72.586 FIELD EXPERIENCE II****3 semester hours**

See course description for 72.584.

**72.590 INDEPENDENT STUDY AND RESEARCH****3 semester hours**

Permits students to work under close faculty guidance on library study of specified areas or on individual research projects when particular needs cannot be met by registration in regularly scheduled courses.

**72.591 INDEPENDENT STUDY AND RESEARCH****3 semester hours**

Permits students to work under close faculty guidance on library study of specified areas or on individual research projects when particular needs cannot be met by registration in regularly scheduled courses.

**72.599 MASTER'S THESIS****3 semester hours**

Opportunity to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern. The problem area selected for the research project must be related to Speech Pathology/Audiology.

## BIOLOGY (Code 50)

**50.411 RADIATION BIOLOGY****6 semester hours**

Studies effects of radiation on living organisms; nuclear structure; fundamental properties of radiation; physical, chemical, and genetic effect on plants and animals from cells to whole organisms; application of radiochemicals in biological studies. Minimum of 4 hours per week including laboratory.

Prerequisite: 50.232, 50.233, 53.141, or consent of the instructor.

**50.432 MICROBIAL GENETICS****3 semester hours**

A genetic analysis of microbes to provide insights into the molecular basis of gene action using viruses, bacteria, and lower eukaryotes. Topics include DNA and chromosome structure, gene organization and expression, genetic recombination, plasmids, transposons, and recombinant DNA. Three hours lecture/seminar per week.

Prerequisite: Consent of the instructor or two of the following courses — 52.341 Biochemistry, 50.242 General Microbiology, 50.332 Genetics.

**50.441 CYTOGENETICS****3 semester hours**

Describes the structure and behavior of chromosomes and their effects on development and human genetic syndromes in reference to the effects of chromosome abnormalities on phenotype.

Explores relationship between chromosomes, oncogenes and cancer. Laboratory studies include microscopic techniques, cell structure methods, and karyotype preparation. Two hours lecture, 2 hours laboratory per week.

Prerequisite: 50.332 or 50.333; or consent of the instructor.



**50.455 ENVIRONMENTAL MICROBIOLOGY****3 semester hours**

Provides a practical application of knowledge of microorganisms, their effects on our environment, methods of control, sanitation regulations, and testing procedures. Field trips taken when practical. 1 hour lecture, 4 hours laboratory per week.

Prerequisites: 50.341 or consent of the instructor.

**50.462 PLANT ANATOMY****3 semester hours**

Outlines recent concepts of plant anatomy and historical consideration of classical researchers. Reviews structure, function, growth, and morphogenesis of the vascular plants. Addresses composition and growth of meristems and the phenomena of subsequent tissue differentiation to increase appreciation of development events.

Describes anatomical organization by developmental and comparative methods in order to explain important cell, tissue, and organ relationships. Two hours lecture, 3 hours laboratory per week.

Prerequisite: 50.120.

**50.463 BIOLOGICAL PHOTOGRAPHIC TECHNIQUES****3 semester hours**

Presents theory and practice of photography as applied to biology including negative and printmaking, gross specimen photography, copying, transparencies, filmstrips, autoradiography, nature work in close-ups, photomicrography, thesis illustrations, and other special techniques. Two hours lecture, 3 hours laboratory per week. Additional laboratory hours may be required.

**50.481-489****ADVANCED SPECIAL TOPICS,  
BIOLOGY AND ALLIED HEALTH SCIENCES****3 semester hours**

Presents an area of biology or allied health. Three semester hours may be applied to the biology major, which requires the student have some background in biology.

Prerequisite: Consent of the instructor.

**50.521 SYSTEMATIC BOTANY****3 semester hours**

Morphology, taxonomy, and geographical distribution of vascular plants. Five hours per week including laboratory.

**50.530 EVOLUTION****3 semester hours**

Studies the major concerns of the theory of evolution and contributions toward their solutions made by genetics, paleontology, systematics, and ecology. Three hours lecture per week.

**50.531 DEVELOPMENTAL BIOLOGY****3 semester hours**

Study of progressive changes or transformations that occur during the existence of various plants and animals. Morphogenesis, differentiation, metabolism, and genetics control are considered. Experimental studies in the laboratory use living material obtained from the local region and living cells grown in the laboratory. Four hours per week including laboratory.

**50.532 MOLECULAR GENETICS****3 semester hours**

Study of macromolecular complexes, protein synthesis, gene regulation, and chromosome structure with emphasis on the eukaryotes.

Three hours lecture/seminar per week.

**50.549 ENTOMOLOGY****3 semester hours**

Studies the physiology, morphology, behavior, classification, and general biology of the insects. A collecting period provides an opportunity for students to collect, mount, and properly display insects for study. Taxonomic emphasis limited to order and family. Equivalent to 5 hours per week including laboratory.

**50.550 MYCOLOGY****3 semester hours**

A critical survey of the kingdom Fungi with emphasis on the Ascomycota, Basidiomycota, Deuteromycota. Lectures cover morphology, physiology, biochemistry, cytology, genetics, systematics, ecology, and evolution. Laboratory sessions stress comparative morphology of higher fungi, laboratory techniques, and field mycology. Two hours lecture/3 hours laboratory per week.

**50.551 CONSERVATION OF BIOLOGICAL  
RESOURCES****3 semester hours**

Emphasis on the theory and practice of environmental conservation of biological resources and on applied ecology. Field trips to observe practices of wildlife, forest, and soil conservation. Five hours per week including laboratory.

**50.552 LIMNOLOGY****3 semester hours**

Chemical and physical aspects of lakes, ponds, and streams and the nature of their biota. Laboratory and field investigations. Five hours per week including laboratory.

**50.557 BIOLOGY OF THE LOWER VERTEBRATES****4 semester hours**

Study of fishes, amphibians, and reptiles embracing their anatomy and physiology, evolutionary history, zoogeography, and behavior. Field and laboratory work includes collection and identification of local fauna. Six hours per week including laboratory.

**50.558 FUNGAL ECOLOGY****3 semester hours**

Provides a broad treatment of the ecology of fungi and an intensive examination of selected topics, i.e., fungal decomposition of wood, bark, and forest litter, ecology of aquatic and predaceous fungi, community structure of soil and/or dung fungi, and aspects of mycorrhizal symbioses. Laboratory stresses demonstration of basic principles, testing existing and formulating new hypotheses, and research techniques, and has a field component.

**50.559 ORNITHOLOGY****3 semester hours**

General biology of birds and the study of bird identification in the field by song and sight. Studies birds of this region in relation to migration, time of arrival, and nesting. Two hours lecture, 3 hours laboratory per week. Off-campus study may be required.

**50.561 ANIMAL BEHAVIOR****3 semester hours**

Presents a description and classification of animal behavior, its evolution and biological function. Emphasizes mechanisms underlying behavior, especially species-typical behavior. Three hours lecture, 2 hours laboratory per week.

**50.570 MEDICAL PARASITOLOGY****3 semester hours**

Presents life history, physiology, taxonomy, and morphology of parasites of medical importance to humankind. Special attention given to clinical aspects such as pathology, symptomology, diagnosis, prevention, and treatment. Laboratory work stresses identification of parasitic disease through living and preserved material, proper handling of specimens, and methods of professional patient interviewing.

**50.571 ENDOCRINOLOGY****3 semester hours**

Studies the individual glands of the endocrine system with respect to their development, morphology, function, regulation, and significance in integrating physiological activities of higher vertebrates. Three hours lecture per week.

**50.572 COMPARATIVE ANIMAL PHYSIOLOGY****3 semester hours**

Compares higher vertebrate adaptations to various environments with respect to regulation of body fluid volume composition, core temperature, and nitrogen metabolism. Four hours per week.

**50.573 SYSTEMIC PHYSIOLOGY****3 semester hours**

Examines how normal body function is maintained by the precise control and integration of the specialized activities of various organ systems. Three hours lecture, 2 hours laboratory per week.

**50.575 CELL PHYSIOLOGY****3 semester hours**

Applies physical and chemical principles to cellular processes, biochemistry of cellular constituents, physiochemical environment; bioenergetics, intermediate metabolism. Three hours lecture/discussion per week.

**50.576 NEUROMUSCULAR PHYSIOLOGY****3 semester hours**

Examines normal physiology of the nervous and skeletal muscular systems; specifically studying cellular neurophysiology, muscle contraction, sensory physiology, motor control and their integration. Three hours lecture and discussion per week. Background in mammalian or systemic physiology, biochemistry and anatomy recommended.

**50.591 DIRECTED STUDY IN BIOLOGY****3 semester hours**

An independent investigation, conducted under the direction of a member of the Department of Biology, in an area of biology in which the student has a particular interest. Student encouraged to identify a problem, employ an experimental design, and analyze collected data. Study of pertinent literature is required.

**50.592 MASTER OF EDUCATION THESIS****6 semester hours**

Independent research and the preparation of a formal thesis in partial fulfillment of the requirements for the degree of Master of Education in Biology.

**50.593 MASTER OF SCIENCE THESIS****6 semester hours**

Independent research and the preparation of a formal thesis in partial fulfillment of the requirements for the degree of Master of Education in Biology.

**BUSINESS EDUCATION****(Code 90)****90.551 TEACHING STRATEGIES IN BUSINESS EDUCATION****3 semester hours**

Presents teaching-learning environments based upon instruction which is geared to involve students in the assessment of their performance according to specific criteria. Emphasizes an increasing degree of professionalism and teacher competency in education today by using specific criteria for judging a teacher's effectiveness. Designed to develop teaching strategies and to evaluate the results of performance-based instruction.

**90.560 BUSINESS AND OFFICE EDUCATION WORKSHOP****1-3 semester hours**

Addresses those educational ideas and experiences that encourage, support, and guide participants to acquire an increased understanding of the accumulated knowledge pertaining to the development of business skills, enhancement of business education as a profession, and determination of a business and office personnel's responsibility and role in the business world.

**90.564 BUSINESS EDUCATION PROGRAM MANAGEMENT AND DEVELOPMENT****3 semester hours**

A study of basic management and curriculum theory as it applies to business education program administration and supervision. Course approached from the perspectives of planning, organizing, staffing, directing, and controlling.

**90.581 SEMINAR IN BUSINESS EDUCATION****3 semester hours**

An investigation and evaluation of completed research in business education on particular topic area(s). Students submit written reports which are used as the basis for class discussions.

**90.599 MASTER'S THESIS IN BUSINESS EDUCATION****1-6 semester hours****COMMUNICATION AND COMMUNICATION STUDIES****(Code 23 and 25)****23.501 NATURE OF COMMUNICATION****3 semester hours**

Examination, discussion, and evaluation of definitions and theories in the contemporary study of communication. Emphasizes developing competencies in recognizing philosophical assumptions, conceptual elements, and adequacy of communication theories.

**23.502 INTERPERSONAL COMMUNICATION****3 semester hours**

A survey of assumptions, models, theories, processes, and contexts related to the study of person-to-person communication. Studies ways of perceiving the communication of self to others as a means of strengthening social interactions.

**23.598 MASTER'S RESEARCH PROJECT****3 semester hours**

Independent research on a topic approved by the student's adviser(s).



**25.445 ORGANIZATIONAL COMMUNICATION****3 semester hours**

An explanation of theoretical and practical aspects of how communication patterns develop in organizations. Compares and contrasts international and intercultural aspects of organizing, as well as considering gender roles.

**25.501 INTRODUCTION TO COMMUNICATION RESEARCH****3 semester hours**

Overview of the fields of research in communication and an examination of the contributions of professional speech communication organizations, graduate studies, and research. Examines and evaluates historical, descriptive and experimental research studies. A pilot thesis required to demonstrate competency in research techniques and use of bibliographical resources.

**25.502 RHETORICAL CRITICISM****3 semester hours**

Study of theory and practice in the investigation and evaluation of symbolic acts created by people to influence thought and behavior.

**25.585 SPECIAL TOPICS IN COMMUNICATION****3 semester hours**

Specialized study by the class. Subject varies by semester.

**25.586 SPECIAL TOPICS IN COMMUNICATION****3 semester hours****25.587 SPECIAL TOPICS IN COMMUNICATION****3 semester hours****25.590 MASTER'S RESEARCH PAPER****3 semester hours**

## **STUDIES IN HEARING LOSS** (Code 74)

**74.490 COUNSELING NEEDS OF COMMUNICATIVELY DISORDERED INDIVIDUALS AND THEIR FAMILIES****3 semester hours**

Designed to help students identify counseling needs of communicatively disabled individuals and their families and to provide basic, short-term counseling. Students introduced to various counseling strategies in individual and group settings as appropriate to schools and speech and hearing clinics.

**74.501 INTRODUCTION TO SIGN LANGUAGE****3 semester hours**

Involves a study of basic sign language vocabulary and fingerspelling techniques used in communication with hearing impaired individuals. Emphasis on developing proper expressive and receptive skills.

**74.560 INTERMEDIATE SPEECH AND LANGUAGE PRACTICUM IN EDUCATION OF HEARING IMPAIRED****3 semester hours**

Provides an opportunity to work with hearing impaired children and/or adults. Emphasis on speech and language remediation of hearing impaired individuals.

**74.564 SPEECH FOR THE HEARING IMPAIRED****3 semester hours**

Study of the principles and techniques used in development and formation of English speech sounds by the synthetic and analytic methods with special consideration given to production, classification, and transmission of speech sounds. Supervised demonstrations and practicums are an integral part of the course.

**74.565 PROBLEMS AND TRENDS IN TEACHING THE HEARING IMPAIRED****3 semester hours**

Focuses on current practices and trends in education and welfare of the hearing impaired. Concerned with psychology, social adjustment, educational achievement, political and social viewpoints, learning problems, and vocational competence of hearing impaired. New techniques and methodologies.

**74.566 LANGUAGE FOR THE HEARING IMPAIRED I****3 semester hours**

Study of the principles and techniques used in the development and correction of language for the hearing impaired. Student familiarized with leading systems of natural language development designed for the hearing impaired. The step-by-step development of at least one language system is required for each student. Supervised demonstrations and practicums are an integral part of the course.

**74.567 LANGUAGE FOR THE HEARING IMPAIRED II****3 semester hours**

Study of structured approaches to teaching spoken and written language, of language assessment devices and appropriate lesson planning. Supervised demonstrations and presentations are an integral part of this course.

**74.568 ADVANCED AMERICAN SIGN LANGUAGE****3 semester hours**

Study of the expressive and receptive components of American Sign Language with an emphasis on communicating with the deaf.

**74.569 CURRICULAR SUBJECTS FOR THE HEARING IMPAIRED****3 semester hours**

Examines practices, content, and methods of teaching school subjects to the hearing impaired with emphasis on content and methods rather than theory.

**74.570 PRACTICUM WITH THE HEARING IMPAIRED****6 semester hours**

Evaluates hearing losses affecting the communicational, educational, and vocational adjustment of individuals through supervised observation, clinical practice, and practicum experience. Students are assigned to approved private and public programs for the hearing impaired and work with selected professionals in communication disorders, following the same schedules and assuming responsibilities similar to those of professionals. Arrangements relating to student interest must be approved by program adviser.

**74.580 INDEPENDENT STUDY AND RESEARCH****3 semester hours**

Permits students to work under close faculty guidance on library study of specified areas or individual research projects when particular needs cannot be met by registration in regularly scheduled courses.

**74.581 INDEPENDENT STUDY AND RESEARCH****3 semester hours**

See course description for 74.580.

**74.584 RESEARCH IN HEARING IMPAIRMENT****3 semester hours****74.599 MASTER'S THESIS****3-6 semester hours****ECONOMICS****(Code 40)****40.513 ORIGIN AND DEVELOPMENT OF CAPITALISM****3 semester hours**

Covers transition from feudalism to capitalism and the subsequent influence of leading capitalist institutions on industry, agriculture, commerce, banking, and the social movement.

**40.514 LABOR ECONOMIC THEORY****3 semester hours**

Emphasizes labor economic theory and its application in analyzing the issues of employment and inflation. Topics include growth of the labor force and its composition, wage theories and wage structures, trade unionism and income distribution, economics of poverty, minimum wage, and hour laws, and civil legislation. Occupational choices, job search, labor mobility, and human capital formation included. Students are exposed to research and measurement methodology to meet the research requirements of the course.

**40.515 PUBLIC POLICY AND BUSINESS****3 semester hours**

Focuses on public policies affecting the economy: historical, philosophical, and legal basis of regulation; the rationale of free enterprise. Intensive analysis of selected areas of economic policy related to government action.

**40.531 CURRENT ECONOMIC PROBLEMS****3 semester hours**

Examines economic problems of current interest and concern to our society. Basic economic principles and theories and the thinking of recognized economists of the past and present as revealed in their published works.

**40.532 COMPARATIVE ECONOMIC SYSTEMS****3 semester hours**

Compares workings and performance of the major forms of economic organization: capitalist systems; the modern welfare states; state capitalism; communism; and socialism.

**40.533 INTERNATIONAL ECONOMIC POLICIES AND RELATIONS****3 semester hours**

Applies modern international economic and financial analyses to emerging contemporary problems of nations trading with one another. Selected topics include: customs unions; optimum currency area; international cartels; and flexible exchange rates. Focuses on impact of governmental and intergovernmental relations and regulations.

**EDUCATIONAL FOUNDATIONS****(Code 60)****60.451 PUPIL PERSONNEL SERVICES IN THE PUBLIC SCHOOL****3 semester hours**

A comprehensive view of pupil personnel services in elementary and secondary schools; school attendance, school health programs, pupil transportation, psychological services, guidance services.

**60.501 MAJOR PHILOSOPHIES OF EDUCATION****3 semester hours**

Interprets modern educational problems and trends in the light of philosophical viewpoints; study of primary sources of concepts and philosophies which have influenced and are influencing education.

**60.502 SCHOOL AND SOCIETY****3 semester hours**

Examines effects of social class, family, and community pressures and changing patterns and standards of life in our society on the school program. Fosters understanding of these pressures and patterns so that the teacher can work effectively to encourage the good and reduce the harmful impacts of social forces in relationships of children.

**60.503 HISTORY OF AMERICAN EDUCATIONAL THEORY****3 semester hours**

Historical foundations of American educational theory with emphasis on individuals and schools of thought which have influenced and are influencing education in America.

**60.505 COMPARATIVE EDUCATION****3 semester hours**

Educational ideas and practices of various countries are examined for their impact upon our culture and education. Particular attention is given to the relationship of European educational programs to the American philosophy and practice of public education.

**60.506 URBAN EDUCATION****3 semester hours**

Examines problems of the urban educational system. Emphasizes growth of sensitivity to the disadvantaged youngster, in-depth examination of current research findings in areas studied, teaching strategies, and resources and approaches to resolve major problems. Discussion of polarization in critical problem areas.

**60.507 USING NEWSPAPERS IN THE CLASSROOM****3 semester hours**

An activity-centered course that provides an orientation to the use of the newspaper in various subject areas. Provides opportunities for the development of learning experiences.

**60.512 MEDIA AND SOFTWARE****3 semester hours**

Advanced study of the role of media in the educative process. Includes critical assessment of that role, selection of equipment and materials for optimum utility, a review of contemporary literature in the field, and a production component involving advanced work in television, transparencies, slide-tape, and computer-assisted instruction.



**60.514 HOME, SCHOOL, AND COMMUNITY RELATIONS****3 semester hours**

An introductory course in public relations with special reference to elementary school. Develops a philosophy of partnership between home, school, and community. Considers principles, attitudes, and techniques to encourage community sharing in the planning of and assuming responsibility for good schools.

**60.520 GUIDANCE AND COUNSELING FOR EXCEPTIONAL CHILDREN****3 semester hours**

Study of the needs of exceptional children in public schools (including the academically talented); guidance and counseling techniques for teachers and guidance counselors in meeting those needs; guidance and counseling for exceptional children related to the total guidance counseling program.

**60.527 CLASSROOM MANAGEMENT AND EFFECTIVE DISCIPLINE****3 semester hours**

Focus on theories of effective discipline and classroom management. Methods of planning for the beginning of the year and for establishing an effective classroom organization to promote appropriate behavior throughout the year are reviewed. Current models and major theories of discipline are reviewed and evaluated.

**60.530 GUIDANCE IN THE ELEMENTARY SCHOOLS****3 semester hours**

Covers concepts and techniques of the guidance process in the elementary school, behavioral and developmental problems, and releasing creative capacities of children.

**60.533 MEASUREMENT AND EVALUATION IN THE ELEMENTARY SCHOOL****3 semester hours**

Emphasizes construction, administration, and interpretation of group tests of intelligence, achievement, aptitude, and personality in elementary schools.

**60.534 CREATIVITY FOR TEACHERS****3 semester hours**

Helps teachers become more creative in their approaches to students and subject matter. Emphasis on understanding the creative process, recognizing the creative child, and development of the creative potential of student and teacher.

**60.550 PROBLEMS IN GUIDANCE AND COUNSELING****3 semester hours**

Covers philosophy of guidance; history of the guidance movement; guidance needs of children and adolescents; methods of gathering data; nature of school records; interpretation of test results and inventories; use of occupational information and data; interviewing and counseling techniques.

**60.551 TECHNIQUES IN COUNSELING****3 semester hours**

Focuses on theories, principles, and practices of counseling; development and use of counseling materials such as test results, educational information, and other pertinent materials.

**60.552 ORGANIZATION AND SUPERVISION OF GUIDANCE****3 semester hours**

Examines types of guidance organizations used in schools and their effectiveness in providing for good guidance.

**60.561 MEASUREMENT AND EVALUATION IN THE SECONDARY SCHOOL****3 semester hours**

Examines construction, administration, and interpretation of group tests in intelligence, achievement, aptitude, and personality in secondary schools.

**60.573 INTRODUCTION TO EDUCATIONAL ADMINISTRATION****3 semester hours**

Focuses on examination of the functions and tasks of educational administration. Issues include the evolving school setting; the meaning, development, and work of school administrators; educational systems analysis; school personnel administration; administrative and organizational behavior; and career ladders in educational administration.

**60.576 SCHOOL LAW AND FINANCE****3 semester hours**

Considers limitations established by local, state, and federal laws relating to the interactions of school personnel. Special attention to recent changes resulting from judicial decisions. Covers fiscal control of education with emphasis on local budgetary problems.

**60.577 EDUCATIONAL RESEARCH FOR SUPERVISION****3 semester hours**

Considers development of ability to read and interpret educational research and apply it to a school situation. Conclusions concerning curriculum content and teaching strategies designed for the improvement of the educational process are emphasized.

**60.578 GROUP PROCESSES IN SUPERVISION****3 semester hours**

Emphasis on group processes, communication in the group, and organizational goals related to educational supervision. Focuses on knowledge of and practice in laboratory experiences in group processes and applicability to supervision. Experiences provide opportunities for experimenting with and evaluating leadership skills and promote creativity and initiative.

**60.579 SUPERVISION OF CURRICULUM AND INSTRUCTION****3 semester hours**

Examines objectives, techniques, and materials of staff supervision; defines the supervisory function directed toward the improvement of instruction with emphasis on the interrelationships between the humanistic aspects of education and democratic administrative behavior; studies roles of contemporary supervision with respect to educational quality assessment, interpersonal relations, and the catalytic role of the supervisor.

**60.580 PRACTICUM IN SUPERVISION OF CURRICULUM AND INSTRUCTION****3 semester hours**

A field-based practicum experience that places the candidate for a Curriculum and Instruction N-12 Supervisory Certificate in a cooperative relationship with an individual in a school setting responsible for the overall planning, coordination, implementation, and evaluation of a curricular and instructional program.

Competency-based experiences discussed in a weekly seminar. Evaluation of the candidate's performance based on achievement of specified competencies.

**60.581 INDEPENDENT STUDY IN EDUCATION**  
1-6 semester hours

Provides an opportunity for public school teachers to pursue in-service projects in cooperation with a faculty adviser. The teacher submits a "learning contract" to an adviser designated by the department chairperson. Contract includes details of the academic goals, descriptions of the project in its relation to the goals and of a proposal for a final report, a reading list, and the proposed credit. Permission to register for the course granted upon approval of the contract. Evaluation based on the written report and an examination by a committee appointed by the adviser and/or department chairperson. Students may register at any suitable time; the duration of the experience is flexible.

**60.583 SEMINAR IN EDUCATION**  
1-6 semester hours

Provides the opportunity for a group of teachers engaged in a common in-service project to use the resources of the university and its faculty. A "learning contract" similar to that of 60.581 is submitted by the group as a basis for permission to register. Papers relate to aspects of the project and to the literature designated in the contract. Discussion and criticism in seminar meetings under the direction of a faculty member. Evaluation is based on the seminar reports and a final comprehensive written report by the student.

**60.584 CURRICULUM AND INSTRUCTIONAL THEORY, DESIGN, AND DEVELOPMENT**  
3 semester hours

Competency-based course consisting of elements that provide a base in relevant theory associated with the activity of curriculum development. A review, critique, and evaluation of current theoretical positions and design methodology are an integral part of the course.

**60.585 CURRICULUM AND INSTRUCTIONAL EVALUATION**  
3 semester hours

Competency-based course consisting of elements providing a base for the student in current theory and practice in the evaluation of school curriculum and instruction. Reviews, critiques, and application of current thinking and practice in curriculum evaluation are an integral part of the course.

**ELEMENTARY AND EARLY CHILDHOOD EDUCATION**  
(Code 62)

**62.410 WORKSHOP IN PRESCHOOL EDUCATION**  
6 semester hours

For in-service teachers and upper-level undergraduates. Study of selected areas in early childhood education. Individual or group study of subjects of interest or concern in teaching.

**62.521 ELEMENTARY SCHOOL CURRICULUM**  
3 semester hours

Studies problems related to development, experimentation, and improvement of curriculum practices in the elementary school.

**62.522 CURRICULUM TRENDS IN EARLY CHILDHOOD EDUCATION**  
3 semester hours

Studies the changing goals and the developing programs required to meet the needs of children who enter school with increased experiential background.

**62.523 PRACTICES IN TEACHING THE YOUNG CHILD**  
3 semester hours

Examination of current practices in teaching the young child with emphasis on the developmental aspects of childhood as they relate to the school program.

**62.524 KNOWLEDGE AND THE CURRICULUM IN THE ELEMENTARY SCHOOL**  
3 semester hours

Studies the place of knowledge in developing a curriculum. Emphasis on content influenced by innovative practices.

**62.525 CURRENT PRACTICES IN ELEMENTARY SCHOOL SCIENCE**  
3 semester hours

Studies the problems resulting from the increased interest of children in science and the need for science instruction in the elementary grades; methods and materials for nurturing these interests and for implementing science instruction within the limits of the interests of children are presented and evaluated.

**62.527 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL**  
3 semester hours

Examination of contemporary trends and current research in the disciplines of the social sciences as a basis for development of a conceptual framework for a social studies program.

**62.528 LANGUAGE ARTS IN THE MODERN SCHOOL**  
3 semester hours

Studies problems related to instruction in various aspects of the language arts; place of the language arts in the curriculum; current research and its practical application.

**62.529 LITERATURE FOR CHILDREN IN THE ELEMENTARY GRADES**  
3 semester hours

Surveys ways children may encounter literature and methods that are effective in the encounter. Acquaints students with children's books, work with children in a storytelling experience, discover ways other than through reading by which children may experience literature.

**62.530 AWARENESS OF ENVIRONMENTAL EDUCATION PROBLEMS FOR THE ELEMENTARY SCHOOL**  
3 semester hours

Helps classroom teacher organize environmental education activities. Areas of content include problem-solving activities, material sources, the use of resources, curriculum building, development of an awareness of environmental problems, and possible solutions to them. Camping and a camp fee are required.



**62.531 ENVIRONMENTAL EDUCATION AWARENESS  
ACTIVITIES AND MATERIALS FOR THE  
ELEMENTARY SCHOOL**

**1-3 semester hours**

An opportunity for students to broaden their experiences in environmental education. Camping and a camp fee are required.  
Prerequisite: 62.530

**62.533 VALUES CLARIFICATION IN THE  
ELEMENTARY SCHOOL**

**3 semester hours**

Primarily for elementary education students. Emphasizes the philosophy and composition of values clarification as it applies to the elementary school child. Practical and theoretical aspects stressed as well as techniques for helping children to build a value system by which they can live. Emphasis on methods which aid the teacher in becoming aware of the emotional needs of children, humanizing of the education process, and improvement of working and learning relationships with others.

**62.539 CURRENT TOPICS IN ELEMENTARY  
EDUCATION**

**3 semester hours**

An investigation of current thinking and research in aspects of elementary education.

**62.581 INDEPENDENT STUDY IN ELEMENTARY  
EDUCATION**

**1-6 semester hours**

Comparable to 60.581.

**62.583 SEMINAR IN ELEMENTARY EDUCATION**

**1-6 semester hours**

Comparable to 60.583.

**62.590 CURRENT RESEARCH AND DEVELOPMENT  
IN EARLY CHILDHOOD EDUCATION**

**3 semester hours**

Examination of recent literature and experimental work in early childhood education — preschool, kindergarten, primary. Characteristics of the learner, learning environment, learning materials, and innovative programs. Departmental paper and/or curriculum projects initiated in this course.

**62.591 LEARNING AND DEVELOPMENT OF THE  
YOUNG CHILD**

**3 semester hours**

Surveys child development and its relationship to the early school years. The development of the young child from age two through eight.

**62.592 IDENTIFICATION AND PRESCRIPTION  
OF THE NEEDS OF YOUNG CHILDREN**

**3 semester hours**

Focuses on techniques of identifying the physical, emotional, social, and mental needs of young children and in developing appropriate prescriptive procedures.

**62.593 ORGANIZATION AND ADMINISTRATION  
OF EDUCATIONAL PROGRAMS FOR YOUNG  
CHILDREN**

**3 semester hours**

Studies the various programs in early childhood education with emphasis on the expansion and administration with regard to the selection of personnel, evaluative techniques, and curriculum procedures, school law, finance, and other appropriate subjects.

**62.594 PRACTICUM IN EARLY CHILDHOOD  
EDUCATION**

**6 semester hours**

An individually prescribed course of study and activity based on (but not limited to) previous experience and academic achievement. Consent of program coordinator and department chairperson required.

**62.595 INDIVIDUALIZED INSTRUCTION —  
PRINCIPLES AND PRACTICES FOR THE  
CLASSROOM**

**3 semester hours**

Analyzes practices, principles, and procedures for individualizing instruction. Experiences include procedures for adapting conventional instructional modes to individualized settings.

**FINANCE  
(Code 96)**

**96.454 FINANCIAL MANAGEMENT DECISIONS**

**3 semester hours**

Studies business financial problems and the development of advanced financial management practices as used in the decision-making role of the financial manager.

**96.535 FINANCIAL MANAGEMENT**

**3 semester hours**

In-depth study of management activities involved in the financial aspects of business enterprise. Theoretical knowledge gained through exposure to financial management literature is applied to problem situations through the use of case studies and simulation techniques. Emphasis on the development of perspective in the decision-making process with the acquisition of tools to facilitate effective decision making.

**96.550 SECURITY ANALYSIS AND PORTFOLIO  
MANAGEMENT**

**3 semester hours**

An advanced treatment of aspects involved in developing a logical and systematic approach to analyzing and evaluating types of securities. Investment strategy and management of an investment portfolio. Theoretical aspects of security analysis and problems involved in analyzing and evaluating securities within the context of the type of industry issuing them.

**96.565 SEMINAR IN FINANCE**

**3 semester hours**

Examines unresolved problems in the field of finance. Investigations include models for financial decision making, money and capital markets, and simulation problems.

## HEALTH AND PHYSICAL EDUCATION (Code 05)

### 05.500 TECHNOLOGY IN HEALTH/FITNESS

3 semester hours

Presents the basic principles of software and hardware usage for exercise science and human performance type of environments. Special emphasis on spreadsheet and data base modeling of performance tests and evaluations used in the area of fitness assessment. Utilizes several common environments as well as methods of software modification and hardware interfacing.

### 05.510 PHYSIOLOGICAL ASSESSMENTS

3 semester hours

Necessary to make rational choices between alternative practices in exercise science and adult health. Provides methods to validate performance improvements. Allows opportunity for students to be involved in proper hypothesis formation both for their own investigations but also for evaluation of current published works.

### 05.511 CONCEPTS IN GRADED EXERCISE TESTING

2 semester hours

Study of the concepts, procedures, and techniques required in graded exercise testing (GXT) involving bicycle ergometer and treadmill test protocols.

### 05.575 ADULT EXERCISE PROGRAMMING

4 semester hours

Concentrates on adult physiological functions under stress and the adjustment and regulatory activities of the body during exercise; development of working knowledge of assessments, motor characteristics, and physical performance.

### 05.576 ADULT EXERCISE PHYSIOLOGY

3 semester hours

Provides a continuation of basic and advanced exercise physiology as applied to adults and the elder population. Intended to develop student's knowledge of the physiology of human performance, the effects of ergogenic aids, aging, and the environment on physical performance.

### 05.577 METHODS AND MATERIALS IN ADULT PHYSICAL EDUCATION

3 semester hours

Emphasizes the academic and technical knowledge necessary to conduct health and fitness programs in public and private agencies. Students are prepared to assume leadership and management positions within the health and fitness industries.

## HEALTH SCIENCES (Code 80)

### 80.500 HEALTH SCIENCES INTERNSHIP

3-6 semester hours

Provides students in the multidisciplinary health sciences an opportunity to apply acquired knowledge in an on-site practicum experience under the supervision of an appropriately credentialed preceptor.

## HISTORY (Code 42)

### 42.452 SOVIET RUSSIA

3 semester hours

Presents a critical analysis of the political, social, economic, and cultural evolution of the Soviet Union and a study of Soviet foreign policy. Not offered every semester. Prerequisite: 42.113.

### 42.472 HISTORY OF LABOR IN THE UNITED STATES

3 semester hours

Surveys the emergence and development of organized labor from the post-Civil War period to the present. A third of the course is devoted to an analysis of contemporary labor-management problems and labor's changing role in our increasingly technological society. Prerequisite: 3 semester hours in history.

## INFORMATION PROCESSING (Code 92)

### 92.550 INFORMATION PROCESSING

3 semester hours

A comprehensive introduction and basic orientation to the use of information processing in the educational environment. Students required to investigate the impact of the computer and associated peripheral devices on the classroom. Emphasis on the effective use of available computer resources.

### 92.554 MANAGEMENT INFORMATION SYSTEMS

3 semester hours

Studies information analysis and systems design from the user's point of view. Students identify the basic concepts of systems point of view, organization as a system, information flows, and nature of management information systems. Data bases and data base management systems will be investigated from the manager's perspective.

## INSTRUCTIONAL TECHNOLOGY (Code 57)

### 57.550 INSTRUCTIONAL DESIGN

3 semester hours

Explores the theoretical foundations of instructional technology and describes a systems approach for the design, development, and evaluation of instruction/training materials. Students conduct needs assessments and instructional analyses, write objectives, and develop instructional design strategies. Emphasis on applying these techniques to the design, development, and production of instruction for interactive technologies.

### 57.551 ADVANCED INSTRUCTIONAL DESIGN

3 semester hours

Serves as a sequel to Instructional Design (57.550) and provides additional information concerning the design of effective instruction. Considers the major approaches to management and evaluation of the instructional design process including topics such as organization and management of the design process, cost analysis, and client consultation skills. Special emphasis is given to management activities that involve interactive technologies.



**56.560 INTERACTIVE GRAPHICS****3 semester hours**

Provides a survey of the major aspects of modern interactive computer graphics from the user perspective. Includes overviews of the hardware, software, data structures, manipulation of graphical objects, the user interface, and a basic understanding of the fundamental implementation algorithms. This is not a programming course, but rather, a course for users of interactive graphical hardware and software.

**57.570 INTRODUCTION TO INTERACTIVE TECHNOLOGIES****3 semester hours**

Examines the fundamental concepts of authoring languages and authoring systems as they are applied to the development of computer-based, interactive learning and information systems.

**57.572 MULTIMEDIA PROGRAMMING****3 semester hours**

Designed to acquaint the student with the various user, authoring, and scripting levels of a hypermedia application program such as Apple's HyperCard or Asymetrix's ToolBook. Uses basic constructs such as stacks/books, backgrounds, cards/pages, fields, and buttons to develop multimedia computer presentations. Reviews and develops applications with emphasis on good design and programming techniques.

**57.573 AUTHORING SYSTEMS I****3 semester hours**

A sequel to 57.570. Includes a more careful, in-depth study of various interactive video systems and their accompanying authoring systems/languages. Emphasis on types of authoring software, generalized authoring options, and instructional design for interactive instruction.

**57.574 AUTHORING SYSTEMS II****3 semester hours**

Includes material on the various options for authoring interactive video courseware. Emphasis on instructional design for interactive video, various types of authoring software, authoring for Macintosh and IBM environments, and effects on courseware design.

**57.575 COMPUTER-ASSISTED INSTRUCTION****3 semester hours**

Provides an advanced foundation for the design, development and management of processes needed for a culminating experience in the production of technology-based instructional courseware. Students, in a team environment, are expected to produce a computer-based program of considerable magnitude as they emulate the operation of a high technology company.

**57.577 PASCAL FOR INSTRUCTIONAL APPLICATION****3 semester hours**

A thorough study of the fundamental concepts and applications of the structured programming language. Pascal provides the skills essential for the design of instructional computing materials.

**57.578 DESIGN OF INSTRUCTIONAL SYSTEMS****3 semester hours**

Applies concepts and skills of structured programming using Pascal or C to the design and development of instructional episodes and to the design of instructional support systems.

**57.590 GRADUATE INTERNSHIP****3 or 6 semester hours**

A graduate thesis may be substituted for the graduate internship as the last course. Allows students to put into practice the theory they have learned in previous courses. Each internship must last at least six weeks and must be directly related to the general content of the master's program.

**57.599 THESIS****6 semester hours**

A graduate internship may be substituted for the graduate thesis as the last course. Allows students to individually synthesize previous coursework through the original design, development, and production of a high technology-based program.

## **INTERDISCIPLINARY STUDIES** (Code 09)

**09.401 HISTORY AND POLITICS OF THE USSR****3 semester hours**

Provides sufficient background in history and political science to enable students to better understand the USSR. Encompasses some of the major developments in the Soviet Union since 1917 employing lectures, films, slides, guest speakers, readings, and discussion.

**09.427 SOCIALISM: THEORY AND HISTORY****3 semester hours**

Surveys socialist philosophies from Biblical times to the present concentrating on the theories of Marx, Engels, Lenin, and Mao and including a review of the major historical events surrounding socialist development.

**09.580-589 SPECIAL TOPICS****1-3 semester hours**

Provides an opportunity for graduate students from any graduate program to expand their knowledge from a previously learned experience or to explore a new learning experience not offered on a regular basis. Each course carries from 1 to 3 semester hours. Prerequisites are determined by the instructor.

**09.590 GRADUATE INTERNSHIP****1-6 semester hours**

Provides a work-study experience initially administrated by an academic faculty member and a sponsoring employer. Provides the opportunity for an internship experience across disciplines at a graduate level.

**09.599 MASTER'S THESIS****3-6 semester hours**

## **MANAGEMENT** (Code 93)

**93.440 SMALL BUSINESS INSTITUTE SEMINAR****1-3 semester credits**

Provides graduate credit for students participating in the College of Business' Small Business Institute Program as well as experience in applying theoretical concepts to practical decision-making business problems.

**93.457 BUSINESS AND SOCIETY****3 semester hours**

Examines the responsibility a business has to the society in which it operates. Combines traditional business theory with current developments. Develops macromanagement framework for analyzing the interacting environmental forces that influence how managers and organizations meet their social responsibilities.

**93.511 STATISTICAL ANALYSIS****3 semester hours**

Covers statistical principles and procedures basic to research in business and interpretation of data.

**93.512 MANAGERIAL ECONOMICS****3 semester hours**

Economic analysis of the firm and its environment. Determination of prices, output, and employment.

**93.556 INTERNATIONAL MANAGEMENT****3 semester hours**

Focuses on dynamic changes in international business environment and increased foreign competition that challenge company managers. Addresses international issues and understanding of their impact on market, products, and services. Develops understanding of international business environment and issues that could enhance an enterprise's survival and success.

**93.560 OPERATIONS MANAGEMENT****3 semester hours**

Analysis of manufacturing and service systems and application of decision making of operational policy problems.

**93.561 OPERATIONS PLANNING AND CONTROL****3 semester hours**

Examination of research findings in operational management with focus on the operation and control of the system.  
Prerequisite: 93.560

**93.562 ORGANIZATION THEORY****3 semester hours**

Applies comparative examination of major approaches to the study of organizations theories and research findings to practical situations. Topics include systems of power and influence, organization structure, organizational conflict and cooperation, individual motivation, group process, behavioral science research and its implications on management.

**93.563 OPERATIONS RESEARCH IN BUSINESS****3 semester hours**

Construction and use of quantitative models in business decision making.

**93.566 ORGANIZATION BEHAVIOR****3 semester hours**

Focuses on internal organizational issues with recognition given to personal and external organizational background factors. Deals with human aspects of organization, spotlighting the group and the individual. Includes the findings and conceptual models of those who have conducted empirical behavioral research and the behaviors of class members. Includes concepts of roles, norms, cohesive and divisive processes. Explores social and status aspects of self-concept, personal perception, goals, feelings, ego, responsibility, decisions, conditioning, and personal functioning.

**93.581 POLICIES****3 semester hours**

Examines complex industrial situations to determine best strategies to insure a firm's long-run survival and growth in competitive markets. Emphasizes problem-solving skills, implementation of optimal decisions, nature of strategic analysis including selected cases involving production, pricing, capital investments and their interaction with other factors.

**93.583 HUMAN RESOURCE DEVELOPMENT****3 semester hours**

Focuses on current research and theory related to management and development of human resources in organizational settings. Emphasis on basic principles of behavior, motivation, training and development, leadership, and performance in organizations.

## **MARINE SCIENCE** (Code 55)

**55.431 ECOLOGY OF MARINE PLANKTON****3 semester hours**

Study of phytoplankton and zooplankton in marine and brackish environments. Qualitative and quantitative comparisons made between the plankton populations of various types of habitats in relation to primary and secondary productivity.  
Prerequisite: 50.110 and 50.120.

**55.500 PROBLEMS IN MARINE SCIENCE****3 semester hours**

Graduate students may pursue one of the following options:

Option A – Enroll in 200, 300, or 400 level course offered at the Marine Science Center in which they desire advanced work and complete, in addition to the regular course requirements, an approved project in the area under the direction of the instructor. Written permission from the instructor is required.

or —

Option B – Enroll in an independent Research Project. To be admitted, a student must submit a research proposal to the academic committee of the Marine Science Consortium. The proposal must include the scope and duration of the proposed research, equipment and facilities required, and a recommendation and approval from the student's academic adviser.

Requires written permission for graduate credit acceptability from the chairperson of the graduate committee of the Department of Biological and Allied Health Sciences before registering. Copies of this approval and the instructor's permission must be forwarded to the academic director of the Marine Science Center before the student arrives on station to take the course.

**55.540 ENVIRONMENTAL SCIENCE EDUCATION****3 semester hours**

Field-oriented approach to environmental education with special emphasis upon coastal zones. Students relate their own disciplines to education for quality environments. Consideration will be given to sources, facilities, methods, techniques, and concepts used in environmental education.

**55.570 RESEARCH CRUISE – BIOLOGY****3 semester hours**

A three-week session involving planning and preparations for an oceanographic research cruise of approximately eight days, actual execution of the cruise plan on board an ocean research vessel.



Introduces data-processing techniques and instrumentation used by biological oceanographers.

Prerequisite: 55.241 or its equivalent, or permission of the instructor.

## **MARKETING** (Code 97)

### **97.551 MARKETING MANAGEMENT**

3 semester hours

Application of the managerial process of analysis, organization, planning, and control to marketing activities: marketing concepts analysis of marketing opportunities, growth and competitive strategy, marketing information systems, buyer behavior, and product development.

## **MASS COMMUNICATIONS** (Code 27)

### **27.511 TELEVISION PRODUCTION AND DESIGN**

3 semester hours

Focuses on the practical aspects of planning and producing video tapes for specific instructional purposes. Covers pre-production planning, production activities, and post-production editing.

## **MATHEMATICS** (Code 53)

### **53.411 INTRODUCTION TO GROUP THEORY**

3 semester hours

Study of theorems and applications of group theory begun in abstract algebra continued.

Prerequisite: 53.310.

### **53.421 ADVANCED CALCULUS**

3 semester hours

Presents a rigorous treatment of the concepts of limit, continuity, derivative, and integral for functions of a single real variable.

Prerequisite: 53.226, consent of instructor.

### **53.422 COMPLEX VARIABLES**

3 semester hours

Presents a rigorous treatment of the complex numbers and theory of functions of a complex variable, limits, continuity, analytic functions, Cauchy-Riemann equations, contour integrals, conformal mappings, and applications.

Prerequisites: 53.226, consent of instructor.

### **53.451 INTRODUCTION TO TOPOLOGY**

3 semester hours

Introduces fundamentals of general topology; elementary set theory, topological spaces, mappings, connectedness, compactness, completeness, product and metric spaces; nets and convergence.

Prerequisites: 53.226, consent of instructor.

### **53.471 NUMERICAL ANALYSIS**

3 semester hours

Provides a computer-oriented analysis of algorithms of numerical analysis. Includes the topics of non-linear equations, interpolation and approximation, differentiation and integration, matrices and differential equations.

Prerequisites: 53.322 and 53.373.

### **53.491 SPECIAL TOPICS IN MATHEMATICS**

3 semester hours

Presents an area of mathematics not available as a regular course offering.

Prerequisite: Consent of instructor.

### **53.576 COMPUTER GRAPHICS FOR INSTRUCTIONAL APPLICATIONS**

3 semester hours

Sequel to 53.375 where techniques for creating color, graphics, and sound are examined and applied to the development of instructional computing programs.

### **53.592 SPECIAL TOPICS**

3 semester hours

## **NURSING** (Code 82)

### **82.501 RESEARCH**

3 semester hours

Prepares students to critique, utilize, and extend nursing research findings to improve the quality of health care and health care delivery. Applies principles and strategies inherent in scientific inquiry, critical evaluation, and the research process. Focuses on the identification of a researchable problem in clinical nursing practice; the conduct of an extensive review and critique of relevant literature; the formulation of a conceptual or theoretical framework to guide the study; and the selection of an appropriate research design and methodology. Students plan, develop, and present a research proposal using appropriate scholarly format and style.

Prerequisites: Undergraduate courses in research design and statistics.

### **82.502 CONCEPTUAL MODELS IN NURSING**

3 semester hours

Explores theory building and levels of theory, the relationship of models to theories, the elements of a model, and major conceptual models in nursing practice. Requires an in-depth analysis of one specific conceptual model in nursing, as well as design a model for advanced nursing practice in students' area of clinical specialization.

### **82.503 ROLE THEORY AND DEVELOPMENT IN NURSING PRACTICE**

3 semester hours

Examines theoretical formulations related to roles and role development and their applicability to the functional role development of the clinical specialist. Students use concepts, principles, and strategies inherent in a variety of theories (i.e. systems, change, and role) to serve as a framework for the development and enactment of the subroles of practitioner, educator, researcher, manager, and consultant. Leadership principles are employed as students identify an actual or potential issue or problem, related to a component of the clinical nurse specialist role, and design a proposal for planned change.

### **82.504 PHYSICAL ASSESSMENT**

3 semester hours

Focuses on physical assessment of individuals across the life span. Learning experiences provided to develop a systematic approach to physical assessment with synthesis of cognitive knowledge and psychomotor skills. Emphasizes the wellness component of physical assessment with reference to major health deviations.

**82.505 ADVANCED PATHOPHYSIOLOGY****3 semester hours**

Presents selected aspects of genetic, biochemistry, physiology, and pharmacology as applied to advanced nursing practice. Functionally relates embryonic, histologic, and gross anatomical features of certain organ systems to biochemical and physiological mechanisms essential for the maintenance of a stable internal environment. Considers some deviations from normal metabolism, structure, and function.

Prerequisites: Undergraduate anatomy and physiology, bio-chemistry, pharmacology, one year of nursing clinical practice.

**82.506 EPIDEMIOLOGY: CONCEPTS AND PRINCIPLES FOR CONTEMPORARY NURSING PRACTICE****3 semester hour**

Focuses on the epidemiological model as a basis for decision making and health promotion in contemporary clinical and community health nursing practice. Presents concepts, principles, and methods of the epidemiologic orientation as the framework for assessing the well-being populations and designing strategic nursing interventions based on levels of prevention. Students apply basic epidemiologic research designs in the investigation, analysis, and proposed solutions to observed patterns of health states in contemporary populations.

**82.511 COMMUNITY HEALTH NURSING I****6 semester hours**

Focuses on advanced professional practice in the multifaceted roles of the community health clinical specialist. Students employ advance knowledge and skills derived from an analysis of nursing theories, models, and community health nursing practice in implementing health promotion, maintenance, and restoration strategies with high-risk individuals, families, and community aggregates in a variety of health care settings. Students assume leadership roles in working independently and interdependently with clients and health professionals to improve the quality of health care delivery. A weekly seminar session provides opportunities for students to analyze the impact of current trends and issues on contemporary practice and to formulate strategies to effect positive change.

Prerequisites: 82.501, 82.502, 82.503, 82.506, candidacy for MSN.

**82.512 ADULT HEALTH AND ILLNESS NURSING I****6 semester hours**

Focuses on the role development of the clinical nurse specialist in adult health and illness nursing practice. Students examine and synthesize theoretical formulation in nursing and related disciplines to serve as bases for advanced knowledge, skills, and values used in the promotion, maintenance, and restoration of the optimal health of adult individuals and families. Develops increased mastery of skills and expertise in utilizing the nursing process with adult clients, families, and the interdisciplinary health team in the promotion of optimal levels of wellness.

Evaluation and refinement of a conceptual model provide for holistic care of adult clients. Employs leadership principles and strategies as students collaborate and independently practice with adult clients, families, and the interdisciplinary health team in developing the multifaceted roles of practitioner, educator, consultant, researcher, and manager. Research skills and process enhanced through seminar presentations, clinical practicum, and course assignments aimed at improving the quality of adult health care. Client advocacy and change process through social and political action encouraged in order to affect the adult health care delivery. In weekly seminars, students analyze current trends and

issues of contemporary advanced nursing practice and evaluating formulated strategies for positive change.

Prerequisites: 82.501, 82.502, 82.503, 82.504, and 82.505, candidacy for M.S.N.

**82.513 MANAGEMENT AND ORGANIZATIONAL BEHAVIOR IN ADVANCED NURSING PRACTICE****3 semester hours**

Explores the concepts of organizational style and the theories of management behavior related to the role of the clinical nurse specialist in advanced practice. Focuses on leadership theories, strategies for maturation and change, concepts of power and influence, and organizational decision making.

Prerequisite: Consent of the instructor.

**82.514 INDEPENDENT STUDY****3 semester hours**

Student works with a faculty preceptor in conducting an individualized study related to a particular area of clinical interest.

**82.531 COMMUNITY HEALTH NURSING II****6 semester hours**

Builds upon Practicum I and provides the student opportunity for advanced professional practice in a variety of community settings in the multifaceted roles of the community health clinical nurse specialist. Focuses on analysis of risk factors of existing and/or potential health problems as they occur at the community level. As students evolve in the roles of the clinical nurse specialist, they assume positions of responsibility, functioning both independently and collaboratively with clients and other health professionals in improving the quality of health care delivery in the community. Weekly faculty/student-conducted seminar sessions emphasize aspects of health planning to meet health needs of communities. Opportunity provided for the application of theory to practice as students analyze problems, issues, and concerns in professional practice as a community health clinical nurse specialist. Clinical practicums in a variety of community settings are arranged relative to course objectives and the student's areas of need and desired practice by mutual agreement among faculty, students, and appropriate agency personnel.

Prerequisite: 82.511.

**82.532 ADULT HEALTH AND ILLNESS NURSING II****6 semester hours**

Concentrates on advanced professional nursing practice as a clinical nurse specialist within a specialized area of adult health and illness through independent, self-directed learning. Through self-directed learning, the student is facilitated to assimilate additional theory and research in advancing the students' knowledge, skills and values in advanced clinical nursing practice for adult clients. Students enhance their expertise in the multifaceted roles of the clinical nurse specialist in adult health and illness by assuming leadership positions in a health care setting and by functioning both independently and collaboratively with clients, family, other health professionals, and community in improving the quality of adult health care delivery. Weekly student-conducted seminars focus on the analysis of current concepts, practices, trends, issues, and research in their role enactment as clinical nurse specialists in the advanced practice of adult health and illness.

Prerequisite: 82.512.



### 82.533 MANAGEMENT AND ORGANIZATIONAL BEHAVIOR IN HEALTH CARE DELIVERY SYSTEM

3 semester hours

Seminar format that explores model building and the future directions of organizational structures for advanced nursing practice. Organizational theory provides the framework for organizational characteristics and identifying the organizational strategies and structures with greatest potential for promoting effective performance and organizational growth. Focuses on organizational environments and planned change in the health care delivery system. Course may be taught in another country to provide international aspects.

Prerequisite: Consent of the instructor.

### 82.590 THESIS

6 semester hours

The development and presentation of a formal thesis in the student's area of clinical specialization. A presentation of the approved proposal is required in an informal open forum before Bloomsburg University students and nursing faculty. Student defends thesis in a formal presentation open to Bloomsburg University students and faculty. Submission of a grade by the three-member thesis committee finalizes the course of study.

Prerequisite: 82.501.

## OFFICE SYSTEMS (Code 94)

### 94.500 INTRODUCTION TO OFFICE SYSTEMS AND INFORMATION

3 semester hours

An overview of office systems—people, technology, and procedures within organizational and environmental contexts. Provides an understanding of the evolving role of the office as a key information systems center.

### 94.510 OFFICE SYSTEMS APPLICATIONS

3 semester hours

Discusses applications of office automation technologies to enhance productivity of office employees from support personnel to managers. Hands-on experience includes comparative and selective techniques for hardware and software, as well as an evaluation of appropriate training materials for support personnel.

### 94.520 ADMINISTRATIVE OFFICE COMMUNICATIONS

3 semester hours

Provides application of communication skills for those professionals who work in environments with automated information and communication systems. Topics include oral and written reports, systems-related documents (reports, proposals, procedures), research methods, and information technology.

### 94.530 TELECOMMUNICATIONS

3 semester hours

Introduction to telecommunications in the business environment. Topics include telephony, data codes, protocols, network architectures, local area networks, communications media, hardware, and software. Management issues and practical applications are an integral part of the course. Emphasizes the application of telecommunications to facilitate information interchange in whatever form the information takes: voice, data, text, and image.

### 94.540 TRAINING AND DEVELOPMENT IN OFFICE SYSTEMS

3 semester hours

Applies theories of learning and instructional procedures to education and training of employees in office systems. Topics include instructional design, strategies, technology, and implementation, evaluation, and management of training with the organizational structure.

### 94.550 INTEGRATED OFFICE SYSTEMS

3 semester hours

Capstone course of office systems curriculum. Includes a synthesis and an application of concepts related to current office systems topics.

Students should enroll in this course during the last semester of the degree program.

Prerequisite: 94.500, 94.540 or consent of the instructor.

## PHYSICS (Code 54)

### 54.421 SOLID STATE PHYSICS

3 semester hours

Examines physical properties of matter in the solid state. Reviews basic quantum concepts, crystal structure, electrons in metals, electrical conductivity, semiconductors, band theory, and the p-n junction. Studies dielectric and magnetic properties of matter. Three hours of class per week.

Prerequisite: 54.310, 54.314; Mathematics 53.225.

### 54.422 THERMODYNAMICS

3 semester hours

Presents concepts and principles of classical thermodynamics, thermodynamics of simple systems, introduction to kinetic theory, and statistical thermodynamics. Three hours of class per week.

Prerequisite: 54.212, or 54.112 with consent of instructor; Mathematics 53.225.

### 54.450 INTRODUCTION TO QUANTUM MECHANICS

3 semester hours

Examines the development and interpretation of Schrodinger's wave mechanics, its mathematical formalism, and the results and predictions of this quantum theory as applied to one-dimensional systems, the hydrogen atom, and multi-electron atoms. Three hours class per week.

Prerequisite: 54.310; Mathematics 53.225.

### 54.480 HISTORY OF PHYSICAL SCIENCE

3 semester hours

An account of the development of physical science from the time of Copernicus to the present with attention to the nature of scientific investigation, assumptions, constructs, and models and the interaction of science with other thinking.

## POLITICAL SCIENCE (Code 44)

### 44.405 THE DEVELOPMENT OF POLITICAL THOUGHT

3 semester hours

A chronological survey from the ancient Greeks to the present undertaken to present the ideas of seminal political thinkers as they grappled with perennial problems.

**44.409 AMERICAN POLITICAL THOUGHT****3 semester hours**

Analyzes the relationship of American political thought to contemporary political science by using traditional materials in an historical, chronological way but reworking them to show their relation and relevance to actions and institutions. Covers main ideas of the leading political thinkers in America from the Colonial period to the present.

**44.437 PUBLIC ADMINISTRATION APPLICATIONS****3 semester hours**

Puts into practice the theory of public administration by using simulations and cases. Offered spring semester only.

**44.438 PUBLIC PERSONNEL ADMINISTRATION****3 semester hours**

Examines public service as a career, the personnel needs of national and local governments, civil service law, personnel systems, and current problems.

**44.440 THE PRESIDENT AND CONGRESS****3 semester hours**

Reviews presidential and congressional politics, public policy-making roles, executive-legislative relationships, constitutional issues. Examines problem areas and proposals for reform.

**44.446 CONSTITUTIONAL LAW I****3 semester hours**

Analyzes the evolution, structure, and function of the Supreme Court, concentrating on a case study approach of the court's interpretations of the powers of the president, Congress, and federal-state relationships. Offered fall semester only.

**44.447 CONSTITUTIONAL LAW II****3 semester hours**

Studies the decisions of the Supreme Court as they are related to the individual and the government, concentrating on nationalization of the Bill of Rights, rights of persons accused of crimes, equal protection, and voting rights. Offered spring semester only.

**44.448 JUDICIAL PROCESS****3 semester hours**

Studies policy-making by the federal courts, primarily the Supreme Court. Analyzes nature of the policy-making function as well as the impact of policy-making on American society.

**44.452 STATE AND LOCAL GOVERNMENT AND POLITICS****3 semester hours**

Presents a description and analysis of state and local legislatures, executives, and judiciaries; the myths and realities of state and local politics; intergovernmental relations; current policies and problems. Offered spring semester only.

**44.458 U.S. FOREIGN POLICY****3 semester hours**

Analyzes substance, methods, and purposes of U.S. foreign policy including the determinants of policy, policy-making machinery, and implementation matters.

**44.464 GOVERNMENT AND POLITICS OF IRELAND****3 semester hours**

Surveys historic, social, cultural, and religious developments in Ireland with concentration on a study of the government and politics of Northern Ireland and the Irish Republic. Examines contemporary literature, drama, music, and art.

**44.487 INTERNATIONAL LAW AND ORGANIZATIONS****3 semester hours**

Presents the theoretical and practical implications of the legal and organizational efforts to regulate international relations with emphasis on international law, the United Nations, the International Court of Justice, and regional and functional organizations.

**44.490 INDEPENDENT STUDY IN POLITICAL SCIENCE****3 semester hours**

Provides for individualized reading, research, and reporting under conditions of minimal supervision. Projects must have departmental approval and be under way by the end of the first week of a session.

**44.491 READINGS IN GOVERNMENT AND POLITICS****3 semester hours**

Topics selected on the basis of close consultation between instructor and student. Designed for either group or individual study.

**44.492 SEMINAR IN GOVERNMENT AND POLITICS****3 semester hours**

Examines selected government and politics in an attempt to review and unify theories and methods of political science. Emphasizes individual research projects.

**44.496 FIELD EXPERIENCE IN POLITICAL SCIENCE****1-6 semester hours**

Provides for supervised individual or group activities including internships of a nonclassroom variety in applied areas of political science.

## PROFESSIONAL STUDIES (Code 79)

**79.591 RESEARCH IN EDUCATION****3 semester hours**

Studies methods and techniques used in educational research; development and interpretation of statistical data and application to professional problems.

**79.593 STUDIES IN HUMAN DIVERSITY****3 semester hours**

Designed for teachers seeking an advanced degree in education. Broadly based and field-based oriented. Provides additional opportunities to integrate new learnings and classroom experiences in these areas: human development, language and culture, learning modes and styles, multicultural and exceptional studies, and an understanding of the social and cultural milieu.

**79.599 THESIS****6 semester hours**

Student demonstrates ability to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern. The problem area selected for the research project must be related to the curriculum that the student is pursuing.



## PSYCHOLOGY (Code 48)

### 48.406 PSYCHOLOGY SEMINAR

3 semester hours

Provides for an advanced consideration of significant topics in psychology. Requires reports and discussions of current research and may be repeated with change in topic.

Prerequisite: 48.101 and consent of the instructor.

### 48.436 THEORIES OF PERSONALITY

3 semester hours

Provides a critical study of theories explaining development, structure, and organization of personality. Considers personality from psychoanalytic, social, individual, self, and learning points of view.

Prerequisite: 48.101. Offered fall semester only.

### 48.451 LABORATORY TRAINING IN GROUP PROCESSES

3 semester hours

Offers on-going experience on topics including norm-setting, leadership, problem solving, role playing cooperation/competition, and decision making. Class size limited to 20 students.

Prerequisite: 48.101 and consent of the instructor. Offered spring semester only.

### 48.453 ORGANIZATIONAL PSYCHOLOGY

3 semester hours

Describes the application of psychological theory and research to the study of industrial, business, profit, and nonprofit service, military, and governmental organizations. Emphasizes the interaction of individual perceptions, group dynamics, and organizational climate and strategies to maximize the satisfaction and effectiveness of each component within and between complex organizations.

Prerequisite: 48.101, 48.251. Offered spring semester only.

### 48.464 ADVANCED EXPERIMENTAL DESIGN

3 semester hours

Presents an advanced consideration of the planning, conduct, and evaluation of research in the behavioral and biological sciences, employing parametric and nonparametric statistics. Emphasizes inferential statistics, design, analysis, interpretation, and computer utilization.

Prerequisites: 48.101, 48.160, 48.281, 48.282, or consent of the instructor.

### 48.466 INDEPENDENT STUDY IN PSYCHOLOGY

3 semester hours

Studies a topic via either review and research of technical psychological literature or empirical manipulation of variables in the field or laboratory under supervision of a psychology faculty member. Requires written report on results of study.

Prerequisites: Consent of the instructor and departmental approval.

### 48.497 PSYCHOLOGY PRACTICUM

1-15 semester hours

Provides application of psychological knowledge through study, observation, and practice in a community, college, or business setting. May be repeated for a total of 15 semester hours.

Prerequisites: Consent of the instructor.

### 48.576 THEORIES OF HUMAN LEARNING

3 semester hours

Studies the historical and contemporary learning systems and models which yield principles for practical application.

## READING (Code 63)

### 63.540 INTRODUCTION TO THE TEACHING OF READING

3 semester hours

Focuses on recent research and trends and provides an historical perspective of reading instruction; designed to develop a knowledge base and instructional competence with different programs and approaches to reading instruction.

### 63.541 DIAGNOSIS AND PRESCRIPTION IN READING

3 semester hours

Emphasizes the administration and interpretation of standardized tests, curriculum-based assessment, and informal diagnostic techniques; analysis of extreme reading disabilities; application of practical remediation techniques; discussion of how to adapt instructional techniques to test results, clinical environment, and a classroom.

### 63.542 PSYCHOLOGICAL ASPECTS OF LITERACY

3 semester hours

Examines psychological aspects of literacy development and implications for teaching reading, writing, listening, and speaking across the curriculum; addresses the instructional needs of diverse learners.

### 63.543 CLINICAL PRACTICUM I

3 semester hours

Clinical experience in diagnosing and remediating the reading difficulties of school-age students who have reading and/or learning difficulties; focuses on self-help strategies related to decoding, comprehension, oral reading, and study skills; emphasizes the application of clinical strategies to curriculum materials and homework; written summary reports required.

Prerequisites: 63.540, 63.541, 63.548 plus consent of clinic director.

### 63.544 CLINICAL PRACTICUM II

3 semester hours

Clinical experience in applying a *whole language*, literature-based approach in a remedial setting; written summary reports required; when combined with the experiences acquired in 63.543, Clinical Practicum I, provides experience with different age/grade levels and practical application of various theories of reading instruction. Prerequisites: 63.540, 63.541, 63.543, and 63.548 plus consent of clinic director.

### 63.545 THE ORGANIZATION AND ADMINISTRATION OF READING PROGRAMS (K-12)

3 semester hours

For classroom teachers, reading specialists, and resource room specialists who are involved with a school district's reading program; emphasizes a working knowledge of certification requirements, job descriptions, guidelines for programs funded through federal or state agencies, resources for exemplary reading programs, program evaluation, and parent involvement.

**63.546 READING IN THE CONTENT AREAS****3 semester hours**

Presents theory and related teaching strategies for content area instruction in grades 4-12; topics include the reading process, textbook evaluations, and strategies for improving comprehension, vocabulary, and study skills.

**63.547 SEMINAR IN READING****3 semester hours**

Advanced independent work in the study of recent research in the field of reading as it is applied to curriculum, instructional materials, and procedures of teaching reading.

**63.548 READING INSTRUCTION FOR THE AT-RISK LEARNER****3 semester hours**

Emphasizes methodology related to improving the reading skills of at-risk learners; provides an overview of Pennsylvania laws and at-risk learners; and how they interrelate in schools; topics include historical and current theories and research, diagnostic tests, learning modalities, exemplary programs, and adapting instruction.

**63.549 TEACHING READING TO THE HEARING IMPAIRED/LANGUAGE-HANDICAPPED****3 semester hours**

Principles, practices, methods, and materials of teaching reading to the hearing impaired/language handicapped; awareness of research and clinic practices which can be applied to classroom settings.

## SECONDARY EDUCATION (Code 65)

**65.530 INSTRUCTIONAL DEVELOPMENT IN MIDDLE AND JUNIOR HIGH SCHOOLS****3 semester hours**

Inquires into the role of early secondary education by analyzing historical trends, curricular patterns, instructional designs, and personnel structure of this organization unit. Emphasis on teacher behavior, student values and attitudes, and instructional designs peculiar to junior high, middle, and intermediate schools.

**65.560 DEVELOPMENT OF THE SECONDARY SCHOOL CURRICULUM****3 semester hours**

Problems related to development, experimentation, and improvement of curriculum practices in the secondary school.

**65.571 EVALUATING TEACHING IN MIDDLE AND SECONDARY SCHOOL****3 semester hours**

Improvement of instruction through self-analysis. Micro-teaching techniques, planning dimensions, self-appraisal techniques. Designed for teachers with special reference to the work of cooperating teachers.

**65.581 INDEPENDENT STUDY IN SECONDARY EDUCATION****1-6 semester hours**

See course description for 60.581.

**65.583 SEMINAR IN SECONDARY EDUCATION****1-6 semester hours**

See course description for 60.583.

## SOCIOLOGY (Code 45)

**45.441 SOCIAL INDICATORS****3 semester hours**

Reinforces and extends earlier learning in research techniques and methods by focusing on systematic step-by-step understanding, analysis, and preparation of social indicators at the federal, state, and local levels of social policy planning and analysis. Promotes understanding of social indicators and the use of these indicators within all levels of society.

**45.443 SOCIOLOGY OF DEVIANT BEHAVIOR****3 semester hours**

Evaluates the presence and function of deviance in society. Includes mental illness and various types of crime and stigmatized behavior. Examines how deviance is handled therapeutically and legally through institutionalization and treatment. Attempts to provide a broad theoretical perspective as well as concrete examples of deviance in any society. Examines current methods of rehabilitation and punishment.

**45.450 SOCIAL WORK PROCESSES II****3 semester hours**

Utilizes problem-solving interventions in small groups integrating social work knowledge, skills, and values. Offered fall semester only.

**45.451 FAMILY COUNSELING****3 semester hours**

Surveys the major theoretical models for family assessment and intervention with primary emphasis on ecological systems. Covers knowledge of rudimentary assessment and intervention skills for problem solving with families.

**45.453 SOCIAL WELFARE POLICY****3 semester hours**

Frameworks for analyzing social and economic policies presented with special focus on legislative, judicial, and administrative policies. Offered spring semester only.

**45.465 COMPUTER APPLICATIONS IN THE SOCIAL SCIENCES****3 semester hours**

An introduction to computer use for the social sciences (through use of SPSS). Emphasizes translating questions into data analysis and interpretation of statistical results.

Prerequisites: 45.260 or similar statistics course. Offered spring semester only.

**45.467 POPULATION PROBLEMS****3 semester hours**

Studies human population, its major theories, distributions composition, changes, and future developments of population, and impacts of population problems on society as influenced by vital processes.

**45.468 SOCIAL SERVICE PLANNING****3 semester hours**

Provides an advanced consideration of the social context of the development of social policy, planning, and implementation of social and/or human services at federal, state, and local levels of organization. A critical analysis of the social effects of social policy, planning, and services on people in a service-oriented, post-industrial society.



#### 45.474 CONTEMPORARY ENVIRONMENTAL ISSUES

3 semester hours

Examines some major human problems that lead to environmental deterioration, particularly, water, air, and noise pollution, energy and other resource depletion, and increasing population density.

#### 45.490 SOCIOLOGY OF AGING

3 semester hours

Studies aging, its major theoretical themes, patterns of living, socio-psychological and cultural consequences of aging. Examines the contemporary issues, problems, and programs of the aging.

#### 45.500 SOCIOLOGY OF MASS COMMUNICATION

3 semester hours

In-depth discussion of cognitive and behavioral effects of mass media, especially television, on audiences, the social structure of communications industry, particularly its influence on media content and the political use of mass media. Students critique the latest research articles in the field.

#### 45.511 SOCIAL INSTITUTIONS

3 semester hours

Sociological examination of major institutions in the United States cross-culturally compared with those in other societies. Specific institutions selected depending on the interest of students and faculty.

#### 45.513 ADOLESCENTS IN AMERICAN SOCIETY

3 semester hours

Studies the role of adolescents in contemporary U.S. society with special emphasis on the adolescent's social interactions in groups and institutions.

#### 45.523 THE CONTEMPORARY AMERICAN COMMUNITY

3 semester hours

An advanced examination of the social dynamics of community life, its institutions, organizations, and people within the context of the development of post-industrial society.

#### 45.525 CURRENT SOCIAL ISSUES

3 semester hours

Analyzes current social issues and solutions offered to solve them. Explores issues and solutions within the broad framework of the social sciences and specific framework of sociological and anthropological data.

#### 45.578 SOCIOLOGY OF WORK

3 semester hours

Focuses on structure and organization of industrial and post-industrial societies and the relationship between work organizations within communities and society. Presents a sociological examination of work and the milieu of the worker. Course focuses on formal and informal work organizations, worker job satisfaction, and dissatisfaction.

### SPECIAL EDUCATION (Code 70)

#### 70.432 LANGUAGE II

3 semester hours

Aids the student in preparing to teach basic and refined written language skills to exceptional individuals. Includes methods and materials for teaching penmanship, spelling, syntactical structure, and reading.

#### 70.450 METHODS FOR ELEMENTARY SPECIAL EDUCATION

3 semester hours

Presents fundamental principles for a variety of teaching techniques applicable to the range of elementary levels of special education. Organization of programs, curricular approaches, and materials for the special education teacher.

#### 70.451 METHODS FOR SECONDARY SPECIAL EDUCATION

3 semester hours

Presents a student-centered workshop approach in analysis of methods, research, and philosophies currently in use in the teaching of special education students. Provides practice in the use of various teaching aids and machines related to student projects in secondary special classes.

#### 70.455 LEARNING DISABILITIES

3 semester hours

Study of characteristics and symptoms of specific learning disorders. Introduction to diagnostic and educational procedures used with learning disorders. Emphasis on perceptual and conceptual factors in the development of language skills. For individuals who have not had a course in learning disabilities.

#### 70.490, 70.491, 70.492

#### SPECIAL WORKSHOP I

1-6 semester hours

Temporary special workshop seminars designed to focus on contemporary trends, topics, and problems in the field of special education. Lecturers, resource speakers, team teaching, field experience and practicum, new media, and related techniques. Usually workshops are funded projects.

#### 70.501 ADMINISTRATION AND SUPERVISION OF EDUCATION FOR EXCEPTIONAL INDIVIDUALS

3 semester hours

Application of the fundamental principles of school administration and supervision to the areas of exceptionality and to problems unique to each. School law, teacher recruitment, in-service education, organization and integration of special education and ancillary services, evaluation of special provisions, and finance as these bear on special education.

#### 70.502 MENTAL RETARDATION

3 semester hours

Intensive review of research pertaining to etiology of mental retardation, classification systems, and diagnosis. Includes study of brain injury, familial retardation, research on learning characteristics, and evaluation of psychological tests. Criteria distinguishing mental retardation from other problems.

#### 70.505 SEMINAR IN LEARNING DISABILITIES

3 semester hours

Facilitates an in-depth study of the behavioral characteristics and cognitive development of children with specific learning disabilities. Intended for students seeking a master's degree with concentrated emphasis in learning disabilities. Enrollment limited to students with the necessary prerequisites and the approval of the instructor.

### 70.516 PSYCHOLOGY OF EXCEPTIONAL INDIVIDUALS

3 semester hours

Symptomatology personality formation and developmental and therapeutic consideration for the exceptional individual.

### 70.517 EDUCATION OF THE GIFTED INDIVIDUAL

3 semester hours

Principles and practices that are modifying school programs to conserve and develop to the optimum degree the capabilities of the more able individuals. Covers teaching techniques and devices used effectively in both the elementary and the secondary school.

### 70.518 IDENTIFICATION AND EVALUATION IN GIFTED/TALENTED EDUCATION

3 semester hours

Provides information that will assist students to become familiar with physical, mental, emotional, and social characteristics of the gifted/talented and to use formal and informal assessment devices and procedures to identify, evaluate, and classify the gifted/talented so that appropriate individual educational programs may be provided for them. Covers ways of developing informal assessments, gathering, and storing observational information and classifying gifted/talented students according to individual educational needs.

### 70.519 CURRICULUM AND PROGRAM DEVELOPMENT IN GIFTED/TALENTED EDUCATION

3 semester hours

Provides comprehensive theoretical and practical approaches to teaching gifted/talented individuals to in-service teachers, administrators, interested parents, and others. Presents a variety of approaches that can be combined or integrated into a unique plan to fit each individual's needs.

### 70.520 CURRICULUM AND MATERIALS FOR THE MENTALLY RETARDED/PHYSICALLY HANDICAPPED

3 semester hours

Presents the latest curricular approaches to, and methods and materials used in, teaching mentally retarded and physically handicapped individuals. Exposure to current public school and residential curricula and to teaching techniques and materials used to implement these curricula.

### 70.522 ASSESSMENT AND REMEDIATION OF MATHEMATICS FOR SPECIAL NEEDS STUDENTS

3 semester hours

Provides an overview of the concepts of hierarchy of skills, computation, and application of addition, subtraction, multiplication, division, fractions, decimals, time, and measurement. Students will administer and interpret achievement, diagnostic and curriculum-based mathematics assessment. Emphasis on development of remedial math programs, adaptations of math curriculum for special needs students and design of a functional mathematics curriculum for moderately disabled students. Students evaluate, design, and implement a math program for elementary, middle school and/or secondary students. Math education software, manipulatives, games, and materials will be evaluated and utilized.

### 70.526 VOCATIONAL WORK STUDY PROGRAMS

3 semester hours

Investigation and analysis of manual skills at various departmental levels. Research criteria and information are applied to job performance and adjustments, to the community, and to job opportunities. Provides experience in job analysis for skills involved and in surveying job adjustments of handicapped adults.

### 70.532 COMMUNICATION DISORDERS OF EXCEPTIONAL INDIVIDUALS

3 semester hours

Reviews research and analyzes language and speech development in relation to intellectual development, cultural background and other influences, criteria and techniques for developing language and speech in the special class and role of speech correctionist and others to teachers.

### 70.544 DIAGNOSTIC AND REMEDIAL TECHNIQUES

3 semester hours

Diagnostic and remedial techniques and instruments used with children in special education programs. Critical evaluation of applicability of each to the child in relation to causes and conditions of exceptionality. Development of skills in interpreting and writing case histories and reports in selection and application of remedial techniques and evaluation of progress.

Prerequisite: Course in tests and measurements or its equivalent.

### 70.552 PROJECTS IN SPECIAL EDUCATION

3 semester hours

Designed to further a student's own interest and competency in an area of special education for the exceptional child. Library research or individual projects involving service to the exceptional person may be agreed upon and conducted under supervision of a staff member.

### 70.554 DISORDERS OF WRITTEN COMMUNICATION

3 semester hours

Designed for students with at least a minimal background in the area of written language, i.e., decoding and encoding processes. Reviews the development and acquisition of reading, spelling, and writing. In-depth study of specific disorders, etiological factors, developmental, and remedial techniques and practices. Specific topics for scholarly research papers determined according to individual needs, experience, and interest. Students required to demonstrate proficiency in all aspects of written language.

### 70.559 SEMINAR IN EDUCATION OF EXCEPTIONAL INDIVIDUALS

3 semester hours

Research oriented and devoted to problems in the education of exceptional individuals. The problems may be theoretical and practical. Consideration given to problems of interest to the student.

### 70.560 NEUROLOGICALLY IMPAIRED INDIVIDUALS

3 semester hours

Covers terminology necessary to interpret diagnostic reports, classroom techniques for managing brain-injured individuals, prepares students to work with individuals with specific learning disabilities that are related to neurological dysfunction and concomitant behavior.



## **70.562 PROBLEMS OF INDIVIDUALS WITH IMPAIRED MOTOR DEVELOPMENT**

**3 semester hours**

Provides information and experience with educationally relevant motor disabilities. Covers normal motor development; formal and informal assessment of motor skills and problems; developmental and corrective preschool and elementary school programs; conditions resulting in severe motor disabilities; self-care, academic, and psychosocial aspects of physical disability; prevocational, and vocational adjustment of the physically handicapped; and current issues related to research and litigation.

## **70.565 READING AND INTERPRETING RESEARCH IN SPECIAL EDUCATION**

**3 semester hours**

Aids the student in reading, understanding, and evaluating the results of statistical and behavioral research carried out by others. Covers a working knowledge of basic statistical terms, an introduction to the type of research questions that can be answered by various statistical procedures, a knowledge of the basic steps of hypothesis testing, analysis and comparison of excellent and poor research designs, and the development of an ability to detect misuse of statistics.

## **70.570 FOUNDATIONS OF BEHAVIOR DISORDERS**

**3 semester hours**

Covers characteristics of children with behavior disorders, approaches to remediation, general principles of classroom management, simulated problem solving, ideal academic models for children with behavior disorders, research findings, and sources of information.

## **70.571 INTERVENTION WITH BEHAVIOR DISORDERED INDIVIDUALS**

**3 semester hours**

A field-based experience where majors meet in class and are given assignments to perform in their classrooms. Observations are made, and feedback is provided. Results of interventions are shared in group class sessions, and strategies are multiplied for all.

## **70.572 SEMINAR ON BEHAVIOR DISORDERS**

**3 semester hours**

Seminar group composed of those who have completed the first two courses in the master's behavior disorders sequence. Group reads new research and discusses implications for applications, as well as future directions, moral issues, and more advanced systems of management and instruction.

## **70.590 DIAGNOSTIC AND TEACHING PRACTICUM IN LEARNING DISABILITIES**

**3 semester hours**

Provides the opportunity to work in a structured setting on a one-to-one and small-group basis. Teacher applies the knowledge previously acquired in academic courses through the interpretation of diagnostic reports, evaluating children's needs, planning, and carrying out programs and making recommendations for each child's future educational program.

## **70.591 PRACTICUM IN TEACHING THE MENTALLY RETARDED AND PHYSICALLY HANDICAPPED**

**3 semester hours**

Facilitates in-service training for teachers currently certified to teach the mentally retarded and physically handicapped. Students select an area of primary interest, and under closely supervised conditions (by the instructor), conduct the project as part of their

professional assignment. Permission to register for the course must be obtained from the instructor assigned to supervise the practicum.

## **70.592 INTERVENTION IN GIFTED/TALENTED EDUCATION**

**3 semester hours**

Facilitates practical training of individual's interested in acquiring a gifted/talented master's degree. Students, under close supervision by department faculty, select an area of interest and contract for a project that enables them to demonstrate a mastery of a set of competencies considered germane to course objectives. Requires permission from the instructor to supervise practicum.

## **70.595 INTERNSHIP**

**3-6 semester hours**

Internship in special education. Supervision to take place in schools or educational situations under supervision of the local supervisor and graduate faculty.

## **70.599 MASTER'S RESEARCH PAPER**

**6 semester hours**

Opportunity to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern. The research project must be related to the exceptional person.



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CARVER HALL

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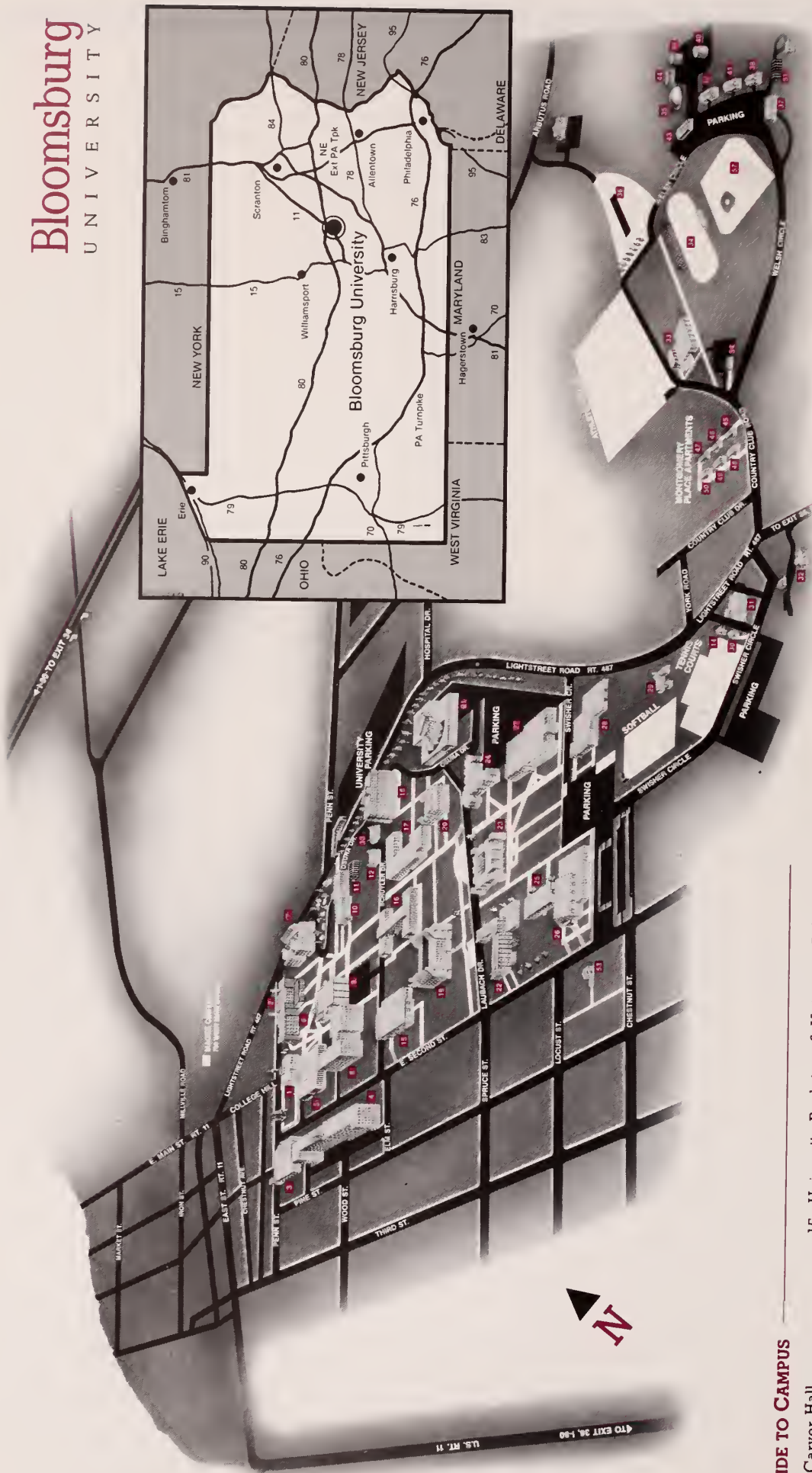
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